**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

HEADWATER RESEARCH LLC, *Plaintiff*, v. SAMSUNG ELECTRONICS CO., LTD and SAMSUNG ELECTRONICS AMERICA, INC., *Defendants*.	Case No. 2:23-CV-00103-JRG-RSP **JURY TRIAL DEMANDED**

**SAMSUNG'S COMBINED RULE 50(B) MOTION
FOR JUDGMENT AS A MATTER OF LAW AND
<u>RULE 59 MOTION FOR A NEW TRIAL</u>**

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* All emphasis in this brief is added unless noted otherwise.

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I.   INTRODUCTION

Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc.
(collectively, "Samsung") move pursuant to Rules 50(b), 59, and 60 for judgment as a matter of
law ("JMOL"), for a new trial, to set aside or reduce damages, and/or to reconsider, correct, or
amend the judgment.

First, Samsung is entitled to JMOL of noninfringement or a new trial as to each of the
asserted patents. In the case of U.S. Patent No. 8,406,733 ("the '733 patent"), Headwater failed to
present substantial evidence that the accused systems include the claimed "service control link."
Headwater's technical expert mapped that limitation to a data link between a server and a Samsung
device, but he never provided any evidence as to what "service" this link allegedly controls or why
the link is supposedly "configured to support control plane communications," as the claims require.

Samsung is also entitled to JMOL of noninfringement on both asserted patents—the '733
patent and U.S. Patent No. 9,198,117 ("the '117 patent")—which require a network server to
transmit certain messages or data to a particular ***component within an application***, claimed
variously as a "device agent" or "software process." Because Headwater's trial evidence showed
only that the accused systems route the accused messages/data to an ***application as a whole***—not
to an agent or process within an application—no reasonable jury could have found infringement.
Headwater also did not provide substantial evidence of the '733 patent's claimed "device agents"
or their "associated device agent identifiers" within Samsung devices. Its expert simply asserted
that device agents exist, without identifying what they were or whether a network server transmits
messages to the unidentified device agents. Worse, Headwater's expert relied on a package name,
which identifies an application, as the device agent identifier—notwithstanding his own admission
that an application is not a device agent. The '733 patent further requires that the delivery of
message content be based on the agent identifier. Headwater failed to show this for both the

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reasons above: because message content is routed to an application as a whole and because an application identifier is not a device agent identifier. The verdict cannot be sustained for these reasons alone.

Moreover, Headwater failed to adduce substantial evidence that Samsung committed any act of direct infringement as to the '117 patent, which claims a distributed system that includes components both on the server-side and at end users' devices. Headwater argued that Samsung "uses" the accused system under 35 U.S.C. § 271(a), but Headwater failed to present sufficient evidence that Samsung controls the system, as Federal Circuit law requires. For similar reasons, Headwater's indirect infringement theory similarly fails because Headwater never presented any evidence that any third party (such as a device user) controls the accused system.

Second, Samsung is entitled to JMOL of invalidity as to both asserted patents because clear and convincing evidence established that the asserted claims were anticipated or at least rendered obvious by Google's GTalkService prior art, which operated nearly identically to the accused Google Firebase Cloud Messaging (FCM) system. For example, Headwater's infringement theory was that an application identifier (*i.e.,* a "package name") satisfies the '733 patent's "device agent identifier" requirement. Although Samsung disputed that, if the jury accepted it, no reasonable jury could simultaneously conclude that GTalkService lacked a "device agent identifier," since GTalkService used an equivalent feature. At a minimum, Samsung is entitled to a new trial because the Court did not instruct the jury, as Samsung requested, that if it found infringement under Headwater's broad application of the asserted claims, it may find that same broad application reads on the prior art. Separately, Samsung is entitled to JMOL of invalidity with respect to the '117 patent because its specification does not include adequate written description for the asserted claims' "network application server"-related limitation.

Third, Samsung is entitled to JMOL or a new trial on the issue of damages for a host of independent reasons. At the outset, Headwater's evidence failed in a number of ways to adequately apportion its claimed damages to the patents' incremental benefits over the prior art. These apportionment shortcomings included Headwater's experts' failure to compare the alleged benefits of the accused technology (*i.e.*, a variety of aggregated push messaging) to the next best alternative (prior art push technology). Instead, Headwater's experts impermissibly based their damages-related opinions on a comparison of the accused push technology to an entirely distinct approach, *i.e.*, pulling or polling. Headwater's apportionment errors also included its survey expert's faulty methodology, which relied on inherently subjective measures (e.g., "standard battery life"), recycled a survey from a prior case that involved different patents and accused technology, and applied conjoint survey and regression analyses that are unreliable for use in estimating prices in a case like this. Headwater also failed to provide evidence tying the alleged damages to any specific patent, impermissibly lumping together disparate inventions.

Samsung is also entitled to JMOL or a new trial on the issue of damages for several additional reasons. Headwater's damages expert improperly disregarded comparable licenses and evidence that must be considered under the *Georgia-Pacific* framework. Additionally, Headwater's damages theory erroneously included wholly speculative damages for future Samsung sales, despite no evidence that the parties would have agreed to such a thing at the hypothetical negotiation. Headwater also failed to present evidence establishing alleged damages specific to each of the accused systems, despite conceding that each system allegedly infringed only during distinct portions of the damages period. Finally, Headwater impermissibly encouraged the jury during closing arguments to generate a royalty rate from whole cloth, untethered to the

evidence, which requires a new trial. In the alternative, the Court should reduce the damages

award to no more than ▉▉▉▉▉▉▉—the maximum amount calculated by Samsung's expert.

Finally, because Headwater inexplicably delayed in suing Samsung for its alleged

infringement, Samsung requests that the Court amend the judgment to omit or at least reduce the

awarded pre-judgment interest.

II.   FACTUAL AND PROCEDURAL BACKGROUND

Headwater filed this lawsuit on March 10, 2023. Dkt. No. 1. Headwater's amended

complaint in this action alleged infringement of three patents. Dkt. No. 31. After dropping one of

those patents on the eve of trial (the '192 patent, Dkt. No. 438), Headwater proceeded with the

'117 and '733 patents, asserting claims 1, 12, and 16 of the '117 patent and claims 1, 7, and 19 of

the '733 patent (collectively, the "asserted claims"). This particular action—the second of

Headwater's cases against Samsung to reach trial—generally relates to a variety of push messaging

technology that Headwater claims to have invented. After a weeklong trial, the jury returned a

verdict finding infringement, no invalidity, and damages of $278,791,460.00.

A.   Samsung and the Accused Push Messaging Technologies

Samsung is a leading manufacturer of smartphones and tablets—mobile devices that

support many functionalities traditionally associated with general purpose computers, like

browsing the Internet, playing music, and storing information.

Like traditional computers, Samsung's devices can run computer programs made by many

third parties. Samsung's devices are based on Google's Android operating system, which serves

as a platform that allows software programs known as applications to run. Trial Tr. 808:14-809:5

(Foster). Applications, or apps, are user-facing tools like Facebook or Uber. Trial Tr. 377:5-14

(de la Iglesia). Samsung's devices include many well-known Google applications like YouTube.

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Id. But customers can download applications from many other software developers as well. Over a million applications are available for Android devices. *Id.*

Each application on a mobile device occasionally receives information from its own application server—a server operated by the developer of the application. Trial Tr. 377:15-17 (de la Iglesia). Applications can request any new messages from their respective servers—*i.e.*, "polling." *Id.* 278:17-25 (de la Iglesia). Alternatively, application servers can proactively send messages to applications without having received a request—*i.e.*, "pushing." *Id.*

Here, Headwater accused two "push" technologies compatible with Samsung's Android-based smartphones and tablets of infringing its patents. Trial Tr. 283:2-14 (de la Iglesia). From ████████████████████████████████, these devices could receive push messages from the Samsung Push Platform ("SPP"). *Id.* ████████████████████████████████ ████████████████████████████. SPP consists of (1) servers maintained by Samsung and (2) SPP clients that run on mobile devices. Trial Tr. 289:19-290:5 (de la Iglesia).

Headwater also asserted that, from 2020 to the present, applications could receive push messages from Firebase Cloud Messaging ("FCM")—a push messaging system developed and operated by Google. Samsung presented evidence that the critical features of FCM had been first developed by 2008, supported the first Android devices, and predated Headwater's patents. FCM consists of servers developed, owned, and controlled by Google, and FCM clients that run on mobile devices. Trial Tr. 289:19-290:5, 365:9-366:1 (de la Iglesia); *id.* at 813:19-25 (Foster).

The accused push systems each consist of a collection of network servers that allow application servers to send push messages to their respective applications on mobile devices. *See* Trial Tr. 367:3-369:22 (de la Iglesia) (addressing FCM); *id.* at 388:1-14 (de la Iglesia) (addressing SPP). Application servers (operated by third-party app developers) send requests to certain

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██ can then route the

push messages to a particular Android mobile device. *See id.* at 367:3-369:22, 388:1-14 (de la

Iglesia).

Mobile devices have "client" software that receive push messages from the respective push

systems. *See id.* at 292:5-25 (de la Iglesia). FCM messages are received by FCM clients, and SPP

messages are received by SPP clients. *Id.* The push system clients route received messages to

their intended applications. *Id.* at 412:2-5, 414:6-9 (de la Iglesia).

B.   Trial

Headwater presented live testimony from named inventor and founder of Headwater, Dr.

Gregory Raleigh, and its experts: technical expert Mr. Erik de la Iglesia, survey expert Dr. Andreas

Groehn, and damages expert Mr. Stephen Dell. Samsung presented testimony from Samsung's

corporate representative Ms. Rachel Roberts, a Google employee knowledgeable about Google's

prior art system GTalkService and the accused FCM technology, Mr. Todd Hansen, and its experts:

technical expert Dr. Ian Foster and damages expert Dr. Ray Perryman. Several other fact witnesses

were briefly presented by video deposition designations.

Headwater asserted Samsung infringed the two patents—the '117 patent and the '733

patent—through use of both FCM and SPP.[1] The '117 patent recites a "network system"

comprising a "network message server" and a plurality of "device messaging agents." Headwater

accused FCM and SPP—including their respective constituent servers and clients—as "systems"

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[1] Headwater dropped its claim of willfulness prior to trial because Headwater admitted and agreed that Samsung was not given any pre-suit notice of infringement of the asserted patents. *See* Dkt. 417 at 19 (Uncontested Facts Nos. 7-10).

that each infringe the '117 patent. Headwater accused each system's servers as the recited

"network message server." Trial Tr. 293:4-15 (de la Iglesia). And Headwater accused "client"

software that executes on Samsung devices as the recited "device messaging agents." Trial Tr.

292:5-293:3 (de la Iglesia). The '733 patent recites an "end-user device" comprising various

elements. Headwater accused Samsung Android-based smartphones and tablets that support SPP

or FCM (2017-present) as "devices" that infringe the '733 patent. With respect to both patents,

Headwater's SPP theories were based on the period of 2017-2020 and its FCM theories were based

on 2020 to the present. *See* Trial Tr. 396:21-397:25 (de la Iglesia).

Headwater presented evidence of alleged damages for the two asserted patents through its

expert, Mr. Dell, relying on information from both Mr. de la Iglesia and Dr. Groehn. The parties

agreed that under a *Georgia-Pacific* framework, the hypothetical negotiation would occur in

March 2013. Trial Tr. 534:15-17. Headwater presented a damages calculation based on (1) alleged

battery calculations offered by Mr. de la Iglesia purporting to calculate that the accused features

provided battery savings of 2-7% and (2) Dr. Groehn's survey and conjoint analysis purporting to

value the incremental profit per unit of battery life improvement for 2-10% more battery life. Trial

Tr. 351:25-357:15 (de la Iglesia), 466:23-478:14 (Groehn). Mr. Dell cross-referenced Mr. de la

Iglesia's percentages in Dr. Groehn's survey results, and he used this calculation as the starting

point for the value of the incremental benefit allegedly provided by the asserted patents. Trial Tr.

535:11-546:19 (Dell). Mr. Dell opined that, in a hypothetical negotiation, Samsung would have

agreed to pay Headwater a lump-sum royalty of $696.3 million based on purported battery life

savings conferred by the asserted patents. *Id.* at 561:18-563:11 (Dell). He arrived at this figure

by applying a $5 per-unit royalty rate, derived primarily from Mr. de la Iglesia and Dr. Groehn's

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analysis, to Samsung's total sales of ████████████████████████████████—including future sales that had not yet occurred—and then discounting the result by ████. *See id.* at 562:9-563:11.

Remarkably, Mr. Dell disregarded Samsung's comparable licenses to similar technology and the Letter of Intent between Interdigital and Headwater where Headwater agreed to sell its entire patent portfolio—including the asserted patents—for much lower sums. The Samsung comparable licenses included a Samsung agreement with ██████████████████████████ ████████████████████████████ which Headwater did not dispute were technically comparable to the asserted patents. And, although Headwater's technical expert gave lip-service to other Samsung license agreements, his testimony that they were not supposedly technically comparable consisted only of his conclusory say-so. *See, e.g., id.* at 358:3-20 (de la Iglesia). Mr. Dell also failed to opine on or incorporate into his analysis information about Headwater's only prior licensee to its patent portfolio, ItsOn, Inc., a sister company also founded by Dr. Greg Raleigh at the same time as Headwater to "commercialize" Headwater's patents. Trial Tr. 223:1-10 (Raleigh). ███. DTX-003; Trial Tr. 986:2-20 (Perryman). Mr. Dell also failed to opine entirely on a signed Letter of Intent between Headwater and InterDigital ███████████████████████████ ███████████████████████████. Trial Tr. 243:23-245:20 (Raleigh); JX-0036.

After the close of evidence, both parties moved for JMOL on several issues pursuant to Rule 50(a) at trial. Trial Tr. 1110:20-1151:2. The jury returned its verdict on April 25, 2025 (Dkt. No. 427), finding all asserted claims (Claims 1, 7, 19) of the '733 patent infringed, all asserted claims (Claims 1, 12, 16) of the '117 patent infringed, all claims of both asserted patents not invalid, and awarded Headwater a lump sum, paid in cash now, of $278,791,460.00, a number

advanced by neither party, and awarded after Headwater's counsel invited the jury to disregard the evidence and come up with its own royalty rate during closing. *Id.* at 1231:14-20. The Court entered final judgment thereon on May 30, 2025 (Dkt. No. 444).

III.   LEGAL STANDARD

"When a case is tried to a jury, a motion for judgment as a matter of law is a challenge to the legal sufficiency of the evidence supporting the jury's verdict." *Cowart v. Erwin*, 837 F.3d 444, 450 (5th Cir. 2016) (internal quotation omitted). "JMOL should be granted when a party has been fully heard on an issue and there is no legally sufficient evidentiary basis for a reasonable jury to find for that party on that issue." *Montano v. Orange Cnty., Tex.*, 842 F.3d 865, 873 (5th Cir. 2016) (internal quotation omitted). The non-moving party must identify "substantial evidence" to support its positions. *TGIP, Inc. v. AT&T Corp.*, 527 F. Supp. 2d 561, 569 (E.D. Tex. 2007). "Substantial evidence is more than a mere scintilla. It means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1363 (Fed. Cir. 2004).

"Judgment as a matter of law of no literal infringement is appropriate if no reasonable fact finder could determine that the accused devices meet every limitation of the properly construed claims." *Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 980 (Fed. Cir. 1999) (reversing denial of judgment as a matter of law). "[I]n reviewing the denial of the JMOL motion on the issue of obviousness, we examine the evidence in the light most favorable to the verdict and determine whether a reasonable jury could have found all the facts necessary to support the verdict of nonobviousness, i.e., whether substantial evidence supports the verdict." *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.,* 491 F.3d 1342, 1360 (Fed. Cir. 2007). A district court "correctly enter[s] judgment as a matter of law" of invalidity when "no reasonable jury could find the claims of the [asserted] patent meet the written description requirement." *Novozymes A/S v.*

DuPont Nutrition Biosciences APS, 723 F.3d 1336, 1346 (Fed. Cir. 2013). To comply with this requirement, "[t]he written description must lead a person of ordinary skill in the art to understand that the inventors possessed the entire scope of the claimed invention." *Juno Therapeutics, Inc. v. Kite Pharma, Inc.*, 10 F. 4th 1330, 1337 (Fed. Cir. 2021); *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010).

A plaintiff's failure of proof of patent damages also entitles the defendant to judgment as a matter of law. *See* Fed. R. Civ. P. 50(b); *Blake v. Robertson*, 94 U.S. 728, 734 (1876) (where plaintiff had "not shown how much of the profit" from infringing machines was attributable to the patented technology as opposed to other technology, it was "entitled only to nominal damages"); *See also Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986) ("The moving party is 'entitled to a judgment as a matter of law' because the nonmoving party has failed to make a sufficient showing on an essential element of her case with respect to which she has the burden of proof."); *Devex Corp. v. Gen. Motors Corp.*, 667 F.2d 347, 363 (3d Cir. 1981) (affirming accounting of zero damages for lack of evidence and observing that Section 284 "requires the award of a reasonable royalty, but to argue that this requirement exists even in the absence of any evidence from which a court may derive a reasonable royalty goes beyond the possible meaning of the statute").

The Court may grant a new trial if the verdict is against the weight of the evidence, the damages are excessive, the trial was unfair, or prejudicial error occurred. *See Smith v. Transworld Drilling Co.*, 773 F.2d 610, 612–13 (5th Cir. 1985); *Cates v. Creamer*, 431 F.3d 456, 460 (5th Cir. 2005). Additionally, "when the award is deemed merely 'excessive,' the district court may remit the award." *Polanco v. City of Austin, Tex.*, 78 F.3d 968, 981 (5th Cir. 1996).

Rule 59(e) gives the Court the power to alter or amend its judgment for a number of reasons including "to correct a manifest error of law or fact." *Demahy v. Schwarz Pharma, Inc.*, 702 F.3d

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177, 182 (5th Cir. 2012). "Rule 59 cannot be used to raise arguments or claims 'that could, and

should, have been made before the judgment issued.'" *Id.* (quoting *Marseilles Homeowners*

Condo. Ass'n v. Fidelity Nat. Ins. Co., 542 F.3d 1053, 1058 (5th Cir. 2008)).

IV.   ARGUMENT

Samsung is entitled to JMOL on the issues of noninfringement, invalidity, and damages as

to both asserted patents. In the alternative, the Court should grant a new trial. In addition, to the

extent the Court does not grant JMOL or a new trial, it should amend the judgment to reduce the

pre-judgment interest.

A.   The Court Should Enter Judgment as a Matter of Law, or Alternatively Order a New Trial, on Noninfringement

1.   *Samsung Is Entitled to JMOL of Noninfringement of the '733 Patent Because Substantial Evidence Does Not Support the Jury's Finding as to the Claimed "Service Control Link"*

Headwater failed to meet its burden of proving infringement of the '733 patent's asserted

claims because it failed to present substantial evidence for the "service control link" limitation.

Claim 1, the only asserted independent claim, requires a "service control link secured by an

encryption protocol and configured to support control-plane communications." JX-1.193 (claim

1). This is a key limitation. Headwater alleges that it invented an aggregated push messaging

channel, and it contends this invention is claimed in the "service control link" limitation:

> [Mr. Fenster:] Dr. Raleigh came up with a new message service system that provides the ability of the app servers over here on the left to send messages down to the apps . . . . ***He aggregated over one connection*** so that all of these different apps and all of the different servers could connect over one connection, and by making it one efficient connection, it was able to be maintained and stay connected all the time.

Trial Tr. 145:18-147:5 (Headwater opening).

> Q. And ***the aggregated channel*** in the context of figure 16 ***is this service control link*** 1653. Isn't that right?

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A. Generally, yes.

Q. Okay. Well, that is the one that's shown here in the figure. Isn't that right? The aggregated channel?

A. That's an aggregated channel, yes.

Trial Tr. 215:10-15 (Raleigh).

But Headwater breezed past this limitation at trial. Headwater's infringement theory relies on mapping the "service control link" to the communication channel between a Samsung device and a mobile connection server. *Id.* at 404:4-10 (de la Iglesia). Merely identifying that a communication channel exists is *not* substantial evidence of a "service control link." The claim requires more: the communication channel must be a *service* control link and it must be configured to support *control plane* communications. *See id.* at 400:13-18 (de la Iglesia) ("Q. It's not just control link in the claim. There's more than just the word 'control' -- the words 'control link.' Isn't that right? A. Control link is not used in isolation. Q. Okay. It's *service* control link. Isn't that right? A. *That is the term in the claim, yes.*"). At no point at trial did Headwater identify, let alone present any evidence about, what it alleges is the "service" of the "service control link," nor did it identify any control plane communication. Pointing to a *link* is just one part of the claim limitation and is not substantial evidence sufficient to uphold the infringement verdict. *Elkay*, 192 F.3d at 980.

Mr. de la Iglesia's testimony on alleged infringement confirms that Headwater merely identified a secure communication channel, and it offered no evidence how this channel is supposedly a *service* control link or that it is configured to support *control plane* communications. Indeed, Mr. de la Iglesia relied almost entirely on his analysis of the '117 patent for this recited limitation from the '733 patent:

Q. What does claim 1[a], element 1[a] require?

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> A. Element 1[a] requires that the modem, that's the radio in the mobile device, establish a service control link over the wireless access network, and that it's secured by an encryption protocol.
>
> Q. And is this the same evidence that you showed the jury before about the secure data channel from the '117 Patent?
>
> A. Yes. It's that same unified secured link.

Trial Tr. 341:6-14 (de la Iglesia).

But evidence that Samsung allegedly infringes the '117 patent cannot sustain Headwater's burden on this element of the '733 patent because ***none*** of the '117 patent claims include a service control link limitation. Thus, it cannot be sufficient to merely incorporate by reference his opinion about a different limitation from a different patent with different elements. While Mr. de la Iglesia then went on to describe the encryption protocol on this link (*id.* at 341:15-342:14 (de la Iglesia)), he stopped short of offering any evidence about the other required aspects of the limitation. He never explained what "service" the accused link allegedly controls or how the link is "configured to support control plane communications," as the claim requires. Again, Mr. de la Iglesia and Headwater merely identify a secured link. Other testimony from Mr. de la Iglesia mentioning the service control link is much of the same. *See, e.g.*, *id.* at 340:5-18 (de la Iglesia) (opining that service control link can carry both data and control messages, but saying nothing about what the service is or identifying evidence of control information). That Mr. de la Iglesia ultimately opines that the accused products practice this limitation is not enough. *See Dominion Energy, Inc. v. Alstom Grid LLC*, 725 F. App'x 980, 986 (Fed. Cir. 2018) ("[J]ust saying that something is so does not make it true, especially when there is no record support"); *Kim v. ConAgra Foods, Inc.*, 465 F.3d 1312, 1320 (Fed. Cir. 2006) (affirming JMOL of noninfringement where "conclusory [expert] testimony" was the basis for infringement).

2.   *Samsung Is Entitled to JMOL of Noninfringement of the '733 Patent Because Substantial Evidence Does Not Support the Jury's Findings that the Samsung Devices Have "Device Agents Identifiable by an Associated Device Agent Identifier"*

Headwater likewise failed to meet its burden of proving that Samsung infringes the asserted claims of the '733 patent because Headwater did not present substantial evidence for the "device agent" limitation. Specifically, claim 1 of the '733 patent requires "***device agents*** identifiable by an ***associated device agent identifier***." JX-1.193 (claim 1). But Headwater failed to present any evidence of any alleged device agent and its associated device agent identifier.

First, Headwater fails to present any evidence of a "device agent identifier" because what it maps this limitation to is ***admittedly not*** a device agent identifier. Headwater maps this limitation to "package name" which Mr. de la Iglesia admits is simply the application name:

Q. And is that software component, that device agent, is that identifiable by the device agent identifier?

A. Yes, it is, and it's identified by the ***package name***, the ***application name***.

Trial Tr. 343:14-17 (de la Iglesia). This mapping cannot support the jury's infringement finding because Mr. de la Iglesia expressly testified that the device agent ***is not*** an application. Trial Tr. 343:10-11 (de la Iglesia) ("That software for the device agent is – it's the component ***within*** the application"), 410:10-13 (de la Iglesia) ("Q. And you agree that a device agent is not an application. Correct? A. That's right. It's a part of an application, but it's not the application."). Because Headwater's expert admitted the package name identifies an application and does not identify the device agent, the package name cannot be a device agent identifier.

Not only is Headwater's mapping contrary to its expert's testimony, it is contrary to Headwater's representation to the Court as to the meaning of "device agent" to save the '733 patent claims from indefiniteness. 7/11/24 Markman Hr'g Tr. 33:12-17 ("THE COURT: Well, Mr. Wang, are you reading 'device agent' to cover what is ordinarily understood as an application in the way

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that Samsung has been describing it today? MR. PHILIP WANG: I don't believe we are, Your

Honor."); Dkt. No. 118 at 13 ("For example, at the hearing, Headwater agreed downloadable apps

are not 'device agents' themselves."). Thus, because package name identifies an *application*, and

Headwater long contended that a device agent is a component *within* the application, Headwater

failed to present any evidence of a *device agent* identifier, even under its own expert's

understanding of the claim.

Second, Headwater failed to identify and present evidence of what in the accused products

is the "device agent." Mr. de la Iglesia testified what a device agent *should* be, but he did not

identify specifically what in the accused products meets this definition:

> Q. Okay. What does element 1[b] require?
>
> A. Element 1[b] requires that there be device agents on these mobile devices, and that they are coupled to this link. So this is the software piece on the phone or the tablet that is the initiator of the link . . . .
>
> Q. And using the Court's construction, did you find that there is a piece of software on the end-user device that performs functions for other software that meets claim element 1[b]?
>
> A. Yes, I did.
>
> Q. And what is that?

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Trial Tr. 342:15-343:13 (de la Iglesia). Thus, Mr. de la Iglesia instead alleged only that the device

agent is some unspecified ██

██." *Id.* But Mr. de la

Iglesia, and Headwater, never named or otherwise identified the "component" that allegedly

performs this function, nor did they present any code or documentation that does so. Indeed,

Headwater did not provide trial testimony analyzing the code of even a single application. As

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discussed above, the package name identifies the application and not a "component within the application." Thus, Mr. de la Iglesia's tautological analysis (*i.e.*, the device agent is the device agent) is insufficient evidence to support infringement.

> 3.   *Samsung Is Entitled to JMOL of Noninfringement of the '733 and '117 Patents Because Substantial Evidence Does Not Support the Jury's Findings that Message Content Is Delivered to a "Particular Device Agent" or that Application Data Is Forwarded to a "Software Process" Based on an Agent Identifier*

Headwater argued that the accused push systems (Google's FCM and Samsung's SPP) allow application servers—the computers that application developers use to initiate push messages—to send push messages to **applications** on mobile devices. *See, e.g.*, Trial Tr. 145:22-146:8, 149:21-25 (Headwater opening). In so doing, Headwater skipped critical claim limitations necessary to prove infringement. *See TechSearch, L.L.C. v. Intel Corp.*, 286 F.3d 1360, 1373 (Fed. Cir. 2002) ("We have further recognized that specific claim limitations cannot be ignored as insignificant or immaterial in determining infringement."). The asserted claims do not merely recite pushing messages to "applications." Such functionality indisputably existed before the patents, as Headwater itself admitted. *See* Sections IV.B. and IV.D.1., *infra*.

Each asserted claim requires transmitting content to specific **components** within an application—*i.e.*, to "device agents" ('733 patent) or "software processes" ('117 patent)—not to applications. *See generally* Trial Tr. 833:15-23 (Foster). The '733 patent's asserted claims require a "service control device link agent" configured to obtain a "decrypted agent message comprising a particular **agent identifier** and message content for delivery to a **particular device agent**." JX-1.193 (claim 1). The message content is then "deliver[ed] . . . to the **particular device agent**"—not to an application—"based on the particular agent identifier." *Id.*

The Court's claim construction order emphasizes the distinction between devices agents and applications. The Court construed "device agent" as "a **piece** of software on the end-user

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device that performs certain functions for other software" and found that "'device agents' and 'app[lications]' clearly have different meanings," noting Headwater agreed that "downloadable apps are not 'device agents' themselves, but suggested that they might include 'device agents.'" Dkt. No. 118 (claim construction order) at 13; *see also supra* Section IV.A.2 (addressing Headwater failure to identify "device agents" and trial admission that device agents and applications are not the same). The '117 patent draws an even starker distinction between applications and application components. Its claims require receiving "Internet data messages"— each with "at least one application identifier"—and also require mapping that application identifier not to an application, as one might expect, but to a "*software process*." JX-3.198 (claim 1). The claims then require forwarding application data in the message to the mapped "*software process*." *See id.*

Headwater presented no evidence that the accused systems transmit messages to an application component, *i.e.*, to a "device agent" or "software process," as the claims require. Its expert, Mr. de la Iglesia, instead testified that the accused systems push messages to an *application*. *See* Trial Tr. 348:15-348:24 (testifying that the '733 patent claims require "deliver[ing] the message contents to the *app*"); *id.* at 320:2-16 (relying on Samsung witness testimony that "the app ID is used by the client making the determination as to whom the push message ought to be sent. So which *app*" as demonstrating infringement of the '117 patent); *id.* at 412:2-5 ("Q. And in your infringement analysis you rely on the fact that FCM uses the package name to send a message to a particular *application*[,] right? A. It does send it to a particular application, yes."); *id.* at 414:6-9 ("Q. . . . And in your infringement analysis, you rely on the fact that SPP uses a registration ID to send a message to a particular *application* . . . right? A. Yes."); *id.* at 464:17-23 (testifying that the "service control link . . . delivers the message to the *apps*").

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As a result, Headwater failed to present evidence satisfying the claims' requirements; instead, it shortcut its burden by conflating an "application" with an application's components ("device agent" or "software process"). *See id.* at 411:21-412:5 (de la Iglesia) ("Q. And you say the application is a software process that is required by the '117 Patent claim . . . right? A. Well, the application is a process."). But that argument is incompatible with both the Court's construction and the evidence presented at trial.

As to the '733 patent, this Court expressly distinguished "applications" from "device agents," and Headwater did not present evidence establishing that transmitting messages to an "application" is proof of transmitting messages to "device agents." *See Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) ("Where a claim lists elements separately, 'the clear implication of the claim language' is that those elements are 'distinct component[s]' of the patented invention." (quoting *Gaus v. Conair Corp.*, 363 F.3d 1284, 1288 (Fed. Cir. 2004)). Further, the '733 patent requires the delivery of the message content to be "based on the particular agent identifier." Even if Headwater had shown that message content is delivered to a component of an app (it did not), Headwater still did not show that the delivery is based on an "agent identifier" because, as explained in Section IV.A.2., package name is not an agent identifier.

Similarly, for the '117 patent and its recited "software process," Headwater's expert did not dispute that Android developers "can arrange for different components in [an] application to run in separate processes." Trial Tr. 1086:20-24 (de la Iglesia); *see also id.* at 846:11-847:14 (Foster) ("Q. And can applications have multiple processes within them? A. Yes. Q. And can applications have multiple components or agents? A. They can, yes."). Notably, in opposing Samsung's motion for summary judgment of invalidity of the '117 patent for lack of written description, Headwater acknowledged that applications can have "one or more software processes

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that enable the application to perform its functions." Dkt. No. 214 at 12. Because different

components of an application can run in separate processes, delivery of a message to an application

does not mean delivery to the process.

To the extent Headwater argues that sending FCM or SPP messages to an application with

only one process necessarily satisfies the "device agent" or "software process" limitations, that

argument fails for at least two reasons. First, Headwater presented no evidence at trial of any

specific application that receives push messages from FCM or SPP and that has only one process

(i.e., only one supposed "device agent" or "software process"). Mere speculation that such an app

may exist is not substantial evidence to sustain the judgment. Second, even assuming Headwater

had presented evidence of such an application, evidence of an application with only a single

process is not evidence that the accused systems forward messages addressed specifically to that

single process. For example, Headwater acknowledged and the Court agreed that an application

is not the same thing as a device agent within that application. Dkt. No. 118 (Claim Construction

Order) at 13. Therefore, evidence that the accused systems may forward a message to an

application is not evidence that the message is forwarded to a specific device agent, as the claims

require. By analogy, delivering a package to a home's mailbox is not the same as delivering it

directly to a person in the home, even if that person is the home's sole resident. *Cf.* Trial Tr.

1087:4-18 (de la Iglesia) ("Q. . . . If a package is addressed to residents, it does not uniquely

identify any individual member of that four-member family. Correct? A. It addresses whatever

is on the address label.").

Accordingly, because Headwater failed to provide substantial evidence that the accused

systems address messages to a "device agent" or "software process" within an application,

Samsung is entitled to JMOL of noninfringement on both asserted patents.

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> 4. *Samsung Is Entitled to JMOL of Noninfringement of the '117 Patent Because Substantial Evidence Does Not Demonstrate an Act of Direct Infringement*

The Court should also grant JMOL of noninfringement because Headwater failed to present sufficient evidence from which a reasonable jury could have concluded that Samsung committed any act that constitutes direct infringement of the '117 patent. *See* 35 U.S.C. 271(a) ("[W]hoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.").

The '117 patent claims a distributed "network system" comprising (1) "device messaging agents" that execute on mobile end-user devices and (2) a "network message server" that transmits messages to those agents. *See* JX-3.198 (claim 1). The "invention" is thus neither an end-user device (*i.e.*, smartphone or tablet), nor a server, but the combination of both. Headwater could prove infringement only by showing that Samsung made, used, sold, offered for sale, or imported this combined system. *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 532 (1972) ("[A] combination patent can be infringed only by combination."). No evidence supports such a finding.

Indeed, Samsung does not possess or control each component of either allegedly infringing system—Google's FCM and Samsung's SPP. Headwater accused each system's respective servers as the recited "network message server." JX-3.198 (claim 1); Trial Tr. 293:4-15 (de la Iglesia). FCM servers are in Google's possession, and SPP servers were in Samsung's possession. And Headwater accused FCM and SPP "client" software that executes on customers' devices as the recited "device messaging agents," but those are possessed by Samsung's customers—not Samsung. Trial Tr. 292:5-293:3 (de la Iglesia). The two allegedly infringing systems are thus physically distributed and, in the case of FCM, completely outside of Samsung's possession. *See id.* at 282:19-283:1 (de la Iglesia).

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     (a)   <u>Samsung Does Not Make, Sell, Offer for Sale, or Import the Accused Systems</u>

Headwater did not present any theory that Samsung makes, sells, offers, or imports the accused systems. Rather, Headwater's direct infringement case for the '117 patent was based solely on alleged "use." *See* Trial Tr. 336:14-20 (de la Iglesia). Therefore, any post-trial theory that Samsung makes, sells, offers, or imports the accused systems cannot uphold the jury's verdict. *Boggan v. Data Sys. Network Corp.*, 969 F.2d 149, 152 (5th Cir. 1992) ("[T]heories not before the jury . . . may not provide the basis for upholding the jury verdict").

A patented system is not "made" until an actor "combine[s] all of the claim elements." *Centillion Data Sys., LLC v. Qwest Commc'ns Int'l, Inc.*, 631 F.3d 1279, 1288 (Fed. Cir. 2011). In *Centillion*, the defendant did not "'make' the patented invention under § 271(a) as a matter of law" where its customers—not the defendant itself—provided the "personal computer" element of the claimed system. *Id.* And Headwater presented no evidence that Samsung creates the combined system, including both the customers' phones or tablets and the Google FCM or Samsung SPP network servers. Thus, no evidence supports a finding that Samsung makes the claimed inventions.

Headwater also did not present any evidence from which a reasonable jury could have concluded that Samsung sells, offers for sale, or imports the accused systems. No evidence suggests Samsung sells, offers to sell, or imports FCM or SPP servers (*i.e.*, the alleged "network message servers" claim elements), necessarily precluding a judgment of infringement on that basis. *See Omega Pats., LLC v. CalAmp Corp.*, 920 F.3d 1337, 1345 (Fed. Cir. 2019) (finding defendant did not make or sell patented system: "But CalAmp is not alleged to provide the cell tower. . . . CalAmp therefore does not provide all the required claim elements, and Omega does not argue that CalAmp directly infringes by 'us[ing]' the system. . . . Thus, CalAmp was entitled to JMOL

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of no direct infringement . . . ."); *Rotec Indus., Inc. v. Mitsubishi Corp.*, 215 F.3d 1246, 1252 (Fed.

Cir. 2000) ("*Deepsouth* remains good law: one may not be held liable under § 271(a) for 'making'

or 'selling' less than a complete invention.").

<div align="center">(b)   <u>Samsung Does Not "Use" the Accused Systems</u></div>

"[T]o 'use' a system for purposes of infringement, a party must put the invention into

service, *i.e.*, control the system as a whole and obtain benefit from it." *Centillion*, 631 F.3d at

1284 (adopting definition of "use" applied in *NTP, Inc. v. Rsch. In Motion, Ltd.*, 418 F.3d 1282,

1317 (Fed. Cir. 2005)). Thus, "to use a system, a person must ***control*** (even if indirectly) and

benefit from ***each claimed component***." *Intell. Ventures I LLC v. Motorola Mobility LLC*, 870

F.3d 1320, 1329 (Fed. Cir. 2017). Headwater failed to present substantial evidence that Samsung

"uses" the accused systems.

Applying these principles, Headwater did not present substantial evidence that Samsung

controls the accused push systems, let alone each claimed component thereof. Instead, while

Headwater argued at length that various accused components—FCM/SPP servers and end-users'

phones or tablets—meet the claimed elements, it offered only conclusory expert opinion that

Samsung uses those systems. *See* Trial Tr. 336:23-337:5 ("Q. And, Mr. de la [Iglesia], can you

explain to the jury how Samsung directly infringes the '117 Patent? A. Well, again, Samsung is,

you know, I call it the bookends. They start the process with their marketers in the United States

that are sending these messages, and the process ends with a Samsung customer with a Samsung

phone receiving those updates and messages on their phone. And Samsung controls when, how,

to who. They control the entire process."). The record does not support this characterization, and

Headwater's expert's conclusory testimony is insufficient to sustain the verdict. *See, e.g.,*

Dominion Energy, 725 F. App'x at 986 (expert testimony that is "conclusory, unsupported, [or]

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contrary to the evidence" is not "substantial evidence to support the jury's verdict"); *Kim*, 465 F.3d at 1320 ("conclusory testimony" from an expert not sufficient to defeat JMOL).

(1)   Samsung does not possess any element of the FCM system

Samsung does not possess a single component of the FCM system. FCM is a Google— not Samsung—solution. *See e.g.*, Trial Tr. 365:14-366:1 (de la Iglesia); *id.* at 708:2-7, 710:1-4 (Hansen); JX-51. It allows third-party application servers registered with FCM to request the transmission of push messages to Android phones and tablets with FCM "client" software. *See* Trial Tr. 377:5-379:3 (de la Iglesia) (acknowledging application servers developed by parties other than Samsung send push messages through FCM); *id.* at 379:4-380:6 (acknowledging FCM can send push messages to non-Samsung devices). FCM includes FCM servers, which Headwater mapped to the "network message server" element. Trial Tr. 293:4-15. And the accused "device messaging agent" is FCM client software on end-user's phones or tablets. *Id.* at 292:22-25. Samsung does not possess either of these components. Google—not Samsung—owns and developed FCM push servers. *Id.* at 365:14-366:1. Samsung's customers—not Samsung— possess FCM clients that run on their phones. *Id.* at 292:5-15. The mere fact that Samsung sells phones that include Google's FCM software does not mean Samsung controls that software. *Centillion*, 631 F.3d at 1286 ("Supplying the software for the customer to use is not the same as using the system."). Further, with respect to FCM, Samsung does not operate or physically possess the "back-end processing," making the use here even more tenuous than in *Centillion*. *See id.*

Thus, upholding the jury's verdict with respect to FCM would constitute an unprecedented extension of the law on "use."   In 2018, the Federal Circuit expressly declined to extend its "doctrine on the control aspect of 'use' of system claims under § 271(a)" to cover a situation where "the accused infringer does not appear to possess any element of the claimed system." *See Grecia v. McDonald's Corp.*, 724 F. App'x 942, 945-46 (Fed. Cir. 2018) ("We have not found, and the

parties have not directed us to, any controlling precedent that involves these facts and answers this question.") (affirming dismissal for failure to state a claim"); *see also Rearden LLC v. Walt Disney Co.*, No. 17-CV-04006-JST, 2018 WL 3031885, at *6 (N.D. Cal. June 18, 2018).

(2)   Samsung does not control Google's FCM as a whole

For similar reasons, Samsung also does not control FCM. Mr. de la Iglesia that Google requires FCM to be installed on Samsung devices. Trial Tr. 351:19-23 ("[T]he FCM portion . . . is part of Google Mobile Services on customer devices which I think they're required to do, they cannot install that without -- they cannot use those services without FCM being there"). Accordingly, Headwater's own expert confirms that Google, not Samsung, controls significant aspects of FCM. His conclusory testimony to the contrary is not legally sufficient to sustain the judgment. Trial Tr. 336:23-337:5 ("Q. And, Mr. de la [Iglesia], can you explain to the jury how Samsung directly infringes the '117 Patent? A. Well, again, Samsung is, you know, I call it the bookends. They start the process with their marketers in the United States that are sending these messages, and the process ends with a Samsung customer with a Samsung phone receiving those updates and messages on their phone. And Samsung controls when, how, to who. They control the entire process."); *see, e.g., Dominion Energy, Inc.*, 725 F. App'x at 986 (expert testimony that is "conclusory, unsupported, [or] contrary to the evidence" is not "substantial evidence to support the jury's verdict"); *Kim*, 465 F.3d at 1320 ("conclusory testimony" from an expert not sufficient to defeat JMOL).

Mr. de la Iglesia additionally testified that application servers can control the timing of push messages, the content of push messages, or the recipient of push messages. *Id.* at 375:23-377:1 ("Q. . . . So it's the . . . operator of the app, they are the ones that make all these decisions. Right? A. Exactly."). For the most part, these application servers are provided by third parties—not Samsung. As to the only Samsung application server discussed at any length at trial—the

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Samsung Messaging Platform ("SMP")—Mr. de la Iglesia's testimony that these application servers control the "timing" of push messages is contradicted by his testimony regarding dependent claim 16. For claim 16, Mr. de la Iglesia testified that, if a phone is not connected, the accused push systems "buffer" the message—evidencing that application servers, even those owned by Samsung, have no control over the timing of when those messages are received. *Id*. at 333:13-334:22. Thus, Samsung cannot control the FCM system as a whole.

<center>(3)   Samsung does not control SPP as a whole</center>

Headwater also failed to present substantial evidence that Samsung controls SPP as a whole. Unlike FCM, Samsung did in fact possess what Headwater alleged to be the claimed "network message servers." *See supra* Section II (Background). But merely providing some components of a system is not the same as "using" the combined elements of that system. "[T]o 'use' the system, [an accused infringer] must put the claimed invention into service, i.e., control the system and obtain benefit from it." *Centillion*, 631 F.3d at 1286. In *Centillion*, even though defendant Qwest provided "back-end processing elements" mapped to the asserted system claim elements, it never "[used] the entire claimed system because it never put[] into service" a particular element of the claimed system, *i.e.*, the customer's computer. *Id*. And, Mr. de la Iglesia's *ipse dixit* opinion that Samsung controlled the system as a whole (Trial Tr. 336:23-337:5) is legally insufficient to establish control.

<center>(4)   Samsung does not control each claimed component of FCM or SPP</center>

To the extent Headwater argues that Samsung controls either FCM or SPP by having servers that can transmit marketing or other notifications to its customers, that too does not suffice to establish the requisite control to establish infringement by "use." The Federal Circuit has held that "to use a system, a person must ***control*** (even if indirectly) and benefit from ***each claimed***

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component."   *Intell. Ventures I LLC*, 870 F.3d at 1329. At a minimum, the evidence showed that

Samsung does not control the alleged "device messaging agents" that reside on customers' devices.

See Centillion, 631 F.3d at 1287 ("While Qwest provides software and technical assistance, it is

entirely the decision of the customer whether to install and operate this software on its personal

computer data processing means.").

Customers choose whether to activate their Samsung devices, whether to cause them to

connect to any network system, and whether to enable or disable them to receive push notifications

from FCM or SPP servers. *See, e.g.*, Trial Tr. 547:1-9 (acknowledging that "not all users may opt

in for alerts or push notifications"). Samsung cannot "turn on" the alleged device messaging agents

because only users can configure their devices in a manner to connect to any network. As another

example, the claim recites a network message server that is "configured to receive" requests from

a "*plurality* of network application servers." JX-3.198 (claim 1). At least in the case of FCM,

Samsung cannot control whether FCM's Google-owned and Google-controlled servers are

"configured" to receive requests from multiple application servers. As Mr. Todd Hansen—

Google's witness personally knowledgeable about FCM and its development testified, Google can

"verify the senders" of FCM push messages, which confirms that Samsung does not control the

configuration of Google servers. *See* Trial Tr. 724:15-725:5 (discussing how Google addressed

"security risks inherent to accepting arbitrary data from outside the device" in its push messaging

system, which today is known as FCM); *see also id.* 725:18-732:2.[2]

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[2] To the extent Headwater contends that Samsung's sending of marketing push messages meets the "use" requirement, that alone cannot suffice to sustain the jury's damages award, when Headwater's damages theory was premised on the supposed battery life savings attributable to all use of the accused systems. *E.g.*, Trial Tr. 279:1-21, 352:20-354:1, 428:18-20, 543:7-544:14; *see Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1318 (Fed. Cir. 2011) (holding damages theories "must be tied to the relevant facts and circumstances of the particular case at issue").

5.   *Samsung Is Entitled to JMOL of Noninfringement of the '117 Patent
Because Substantial Evidence Does Not Support the Jury's Finding of
Indirect Infringement*

(a)   No Evidence of Induced Infringement

Headwater based its indirect infringement allegations on the theory that Samsung induces

Samsung device users—*i.e.*, Samsung's customers—to infringe the '117 patent. Trial Tr. 337:18-

338:7 ("Q. . . . Can you explain to the jury why Samsung is indirectly inducing infringement of

the '117 Patent? A.   Okay, well, by indirect infringement, it's the user that does the direct

infringement . . ."). It argued that Samsung "preinstalls [push notification] software" on phones

and "encourages their users to enable the notifications." *Id.*; *see also id.* at 1115:15-22 ("Mr. de

la Iglesia explained how Samsung induces its customers to directly infringe including by

encouraging users to enable push notifications for individual apps and opt in to push

notifications.").

This theory fails for similar reasons to those why Samsung should not be found to be a

direct infringer. Specifically, no evidence supports the conclusion that Samsung's end users "put

the claimed invention into service" or "control the system as a whole," let alone control every

component of the system. *See Centillion*, 631 F.3d at 1288; *Intell. Ventures I LLC*, 870 F.3d at

1329.   As to Samsung's customers, Headwater did not even present the conclusory expert

testimony regarding alleged control on which it relies for alleged direct infringement.

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Headwater offered no evidence tying the use of marketing push messages, as opposed to non-marketing messages, to its battery life-based damages theory. Thus, such a theory cannot support the jury verdict.

        (b)   <u>No Evidence or Analysis of Contributory Infringement for the '117 Patent or of Indirect Infringement for the '733 Patent</u>

Headwater did not argue at trial that Samsung was liable for contributory infringement or present any analysis that would support such a finding. *See* Trial Tr. 337:18-338:4 (alleging only induced infringement); *see also Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1326 (Fed. Cir. 2010) (setting forth elements of contributory infringement including the identification of a component that "has no substantial noninfringing uses" and "is a material part of the invention.").

Headwater also presented no theories of indirect infringement with respect to the '733 patent at trial. It instead focused exclusively on the '117 patent. *See* Trial Tr. 276:20-25 (de la Iglesia) ("Q. . . . [C]an you just preview what your conclusion was with respect to whether Samsung infringed each of the asserted claims? A. I found that Samsung infringed the '117 Patent, both directly and indirectly, and I found that Samsung infringed the '733 patent directly."); *id.* at 359:1-8 (de la Iglesia)."), 359:1-8 ("It's my opinion that Samsung infringes the asserted claims of '117 directly and indirectly, and that they practice -- they infringe the asserted claims of the '733 Patent directly because it's just the device."). Samsung therefore requests JMOL of no contributory infringement of the '117 patent and no indirect infringement (including inducement or contributory) of the '733 patent. *See Boggan v. Data Sys. Network Corp.*, 969 F.2d 149, 152 (5th Cir. 1992) ("[T]heories not before the jury . . . may not provide the basis for upholding the jury verdict.").

To the extent the Court grants Samsung JMOL of no direct infringement but nevertheless finds that substantial evidence supports a finding of indirect infringement, the Court must still vacate the judgment, at least because insufficient evidence exists to support the jury's damages award. Any indirect infringement is limited as a matter of law to post-complaint activity since the Court granted Samsung summary judgment of no pre-suit indirect infringement because

Headwater adduced no evidence of pre-suit knowledge of the patents. Dkt. No. 373 at 4-5; Dkt. No. 412 (adopting R&R). Headwater's evidence of alleged damages at trial was based exclusively on the entirety of Samsung's sales during both the relevant pre-complaint and post-complaint periods¸ and no party presented evidence from which a jury could have calculated a damages award limited to alleged post-complaint indirect infringement. This issue is exacerbated by the fact that Headwater failed to differentiate damages per accused product (SPP and FCM), ▮▮▮▮▮▮▮▮▮

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See Section IV.D.4. Therefore, the damages award must be vacated if the Court finds no indirect infringement based on either FCM or SPP.

6.   *The Court Should Grant a New Trial Due to Headwater's Unfairly Prejudicial Statements Regarding the Alleged Lack of Non-Infringing Alternatives*

If the Court does not grant JMOL of noninfringement, it should alternatively grant new trial because the verdict was "against the great weight of the evidence" and based on improper and highly prejudicial arguments regarding non-infringing alternatives. *Cates*, 431 F.3d at 460.

Non-infringing alternatives ("NIAs") should have been a non-issue at trial. Before trial began, Samsung had the option of arguing that NIAs available at the time of a hypothetical negotiation would reduce any reasonable royalty Samsung would have agreed to at that hypothetical negotiation. *See LaserDynamics, Inc. v. Quanta Comp., Inc.*, No. 2:06-CV-348, 2011 WL 197869, at *3 (E.D. Tex. Jan. 20, 2011), objections overruled, No. 2:06-CV-348, 2011 WL 13196509 (E.D. Tex. Jan. 28, 2011) ("Quanta, therefore, bears the burden of proving that the non-infringing alternatives were "available" to it during the accounting period."); Dkt. No. 176 at 1 (Headwater motion to strike Dr. Foster report); Dkt. No. 375 at 10 (declining to recommend striking certain of Samsung's NIAs on the basis of alleged unavailability). Samsung elected to

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withdraw that defense to prevent irrelevant and highly prejudicial evidence from being presented to the jury.

Headwater sought to present to the jury that ████████████████████████████ as part of a complex commercial agreement that is irrelevant to the accused technologies. *See* Dkt. No. 404 at 1. In Samsung's view, these high dollar figures served no other purpose than to improperly skew the jury's perception of appropriate damages, as not even Headwater's experts included them in calculating a reasonable royalty. Samsung sought to preclude Headwater's experts from introducing this evidence at trial. *See* Dkt. No. 185 at 12-15 (motion to strike de la Iglesia report); Dkt. No. 186 at 12-13 (motion to strike Dell report). The Court recognized the potential for the "misuse of large figures" in its orders addressing Samsung's motions to strike. *See* Dkt. No. 378 at 9-11 (memorandum order addressing de la Iglesia report); Dkt. No. 380 at 5-6 (memorandum order addressing Dell report). Nevertheless, the Court found that the actual dollar figures as provided in deposition testimony of a Samsung witness were relevant to Headwater's rebuttal of Samsung's NIAs. *See* Dkt. No. 404 at 1. "[T]he Court also ruled that if no such NIAs [were] presented at trial by [Samsung], then the dollar amounts at issue" would be excluded. *Id.*

Faced with the difficult choice of abandoning its NIA defenses or opening the door to massive figures that could skew the jury's damages finding, Samsung withdrew its NIA defense. *See* Dkt. No. 394 (Defendants' Amended Notice of Final Invalidity Theories and Equitable Defenses). At this point, this Court's standing MIL No. 1 precluded Headwater from "introducing evidence, testimony, or argument" regarding this dropped defense. *See* CMIL1 ("The parties shall be precluded from introducing evidence, testimony, or argument regarding pretrial proceedings or issues including but not limited to discovery disputes, dispositive motion practice, or dropped claims or defenses"). For that reason, Samsung argued—and the Court agreed—that the Court

should omit non-infringing alternatives from the final jury instructions, since this defense was irrelevant based on the evidence presented at trial. *See* Trial Tr. 1165:19-1171:9 (overruling Headwater objection at formal charge conference).

Headwater then improperly transformed Samsung's withdrawn defense into a "stealth" admission-of-infringement argument. Headwater repeatedly implied to the jury that because "Defendants haven't presented any way in which they could do this without infringing . . . therefore they must infringe," as this Court expressly recognized:

> [THE COURT:] And I have been concerned, as I expressed in the informal charge conference yesterday, which you were not present in because you were preparing to present closings, which was perfectly proper, but ***I expressed in the formal charge conference yesterday that the issue of non-infringing alternatives I viewed as a stealth infringement argument*** from the Plaintiff in fact telling the jury the Defendants haven't presented any way in which they could do this without infringing so therefore they must infringe.
>
> And ***the issue of non-infringing alternatives in the Court's view has not been used in this trial in any relation to the damages issue to which it solely relates but has been an implied issue relating to the infringement question, which is improper***. And that's why I took it out of the final instructions.
>
> If you want to argue that there's no dispute in this case that the Defendants did not offer any non-infringing alternative, there's no problem with you arguing that, but I do not feel it's appropriate for the Court to instruct the jury on the issue.
>
> I made a conscious decision to take it out of here. You may object to that and I'll overrule your objection, but this was not accidental.
>
> . . .
>
> THE COURT: I didn't say you had overtly argued it. I said it was a stealth, an implied non-infringement argument. ***I've watched the trial, I've seen how it's been used, I've seen where and when it was raised***. I do not want this jury to make a decision on infringement based on some implication that's improper.
>
> . . .
>
> But ***I am convinced that the non-infringing alternatives issue, there is a high risk that it will be improperly considered and applied by the jury if I instruct on it***. I'm not trying to curtail what your argument will be or what Mr. McKeon's

argument will be, and there is no dispute in this case that Samsung has not offered
a non-infringing alternative theory.

Trial Tr. 1166:15-1168:17.

The Court was correct: Headwater and its witnesses took every opportunity not only to

argue that Samsung presented no alternatives to the asserted patents, but that Samsung had no non-

infringing alternatives—an allegation wholly unsupported by the record and disproven by the

evidence Samsung withdrew before trial. *See* Trial Tr. 351:5-10 (de la Iglesia direct) ("Q. . . . Do

you have any understanding that Samsung -- whether Samsung is asserting in this case that they

have a non-infringing way to do push notifications and obtain these benefits? A. I understand in

this case ***their position is they have no non-infringing alternatives***."), 351:11-24 ("So I

understand that Samsung ***cannot*** show that they can offer this push messaging service without

infringing Headwater's patents."), 453:11-15 (de la Iglesia redirect) ("I understand that ***Samsung***

says there are no non-infringing alternatives."), 552:24-553:7 (Dell direct) ("[A]lso ***Samsung***

didn't have any non-infringing alternatives that it could implement or use that would provide the

same economic benefits as its use of the two patents-at-issue in this case."), 553:14-554:12 ("Q.

So your understanding is that ***Samsung didn't have a non-infringing alternative*** that it could

switch to instead of the technology from the Headwater Patents? A. That's correct . . ."), 669:14-

17 (Roberts cross) ("Q. . . You understand that in this lawsuit ***Samsung's position is that there is***

no alternative, no non-infringing alternative, other than the technology accused in this case for

push notifications. Correct?"). As the Court observed, Headwater did not use the issue of non-

infringing alternatives "in any relation to the damages issue to which it solely relates" but instead

as an "implied issue relating to the infringement question," which was improper and unfairly

prejudicial to Samsung. Trial Tr. 1166:24-1167:4

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The Court sustained Samsung's objection to Headwater's questioning regarding the issue, and yet Headwater continued undeterred by the Court's rulings. *Compare* Trial Tr. 669:19:672:4 (Court ruling "I do think you're going into matters that are not proper given the dropped issue of non-infringing alternatives"), *with id*. at 937:8-21 (Foster cross) ("Q. Sure. You have not provided any opinion today that ***there is any*** -- that Samsung has any non-infringing alternative available to it to do push messaging other than using the accused systems? A. I was not asked about that, no."); 1049:18-1050:3 (Perryman cross) ("Q. And the jury's entitled to . . . understand that ***there's no non-infringing alternative for Samsung*** and conclude that's an unreasonable number that Dr. Raleigh would never agreed to correct?"). In fact, Headwater brazenly misused the issue in its very last point during closing arguments, even after Court had admonished Headwater at the formal charge conference for having used the issue as an improper "stealth infringement argument." *See* Trial Tr. 1265:7-16 ("If there was another way to do push other than the accused products, they would have shown you that there was a suitable non-infringing alternative other than the accused products, and they have not. THE COURT: Your time's expired, counsel.").

Headwater's misconduct was "so egregious as to render the trial unfair" and therefore justifies a new trial. *See Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1284 (Fed. Cir. 2000); *see also Power Mosfet Techs., L.L.C. v. Siemens AG*, 378 F.3d 1396, 1406 (Fed. Cir. 2004) ("We review the denial of a motion for a new trial under the law of the regional circuit. *Riverwood Int'l Corp. v. R.A. Jones & Co.*, 324 F.3d 1346, 1352 (Fed. Cir. 2003). The Fifth Circuit reviews the denial of a motion for a new trial for abuse of discretion. *Sibley v. Lemaire*, 184 F.3d 481, 487 (5th Cir. 1999).").

Although the Court recognized and sought to mitigate harm caused by Headwater's misconduct, its solution could not cure Samsung's prejudice. After noting Headwater's stealth

admission-of-infringement argument, the Court deliberately omitted reference to non-infringing

alternatives in the jury instructions, over Headwater's objections. *See* Trial Tr. 1165:19-1167:4

(formal charge conference). The Court was correct to not instruct the jury that it may consider the

absence of NIAs as a factor that inflates a reasonable royalty. *Id.* at 1166:9-14. But this remedy

did not cure Samsung's prejudice. Since the jury instructions did not address NIAs, the jury was

left to wonder about their relevance—as Headwater itself recognized. *Id.* at 1166:3-4 ("The

absence here now suggests to the jury that we were pointing to something irrelevant."). Given

Headwater's emphasis on NIAs at trial, including in closing arguments, the jury easily could have

reached the improper conclusion that because Samsung had no "non-infringing alternatives" that

must mean it had no alternative but to infringe.[3]

B.   The Court Should Enter Judgment as a Matter of Law of Invalidity Based on Anticipation or Obviousness Over GTalkService

No reasonable jury could have rejected the clear and convincing evidence that the asserted

'733 and '117 claims are valid over GTalkService. As detailed by Todd Hansen, the Google

engineer who worked on both GTalkService and FCM, GTalkService is the predecessor of the

accused Google FCM service and included all of the functionality that Headwater accuses of

infringement before the earliest priority date of both the '733 and '117 patents. Headwater asserted

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[3] Samsung acknowledges the Court characterized certain matters presented by Samsung to be "equally" improper—namely, that Headwater's delay in filing this lawsuit implied that "they must not have anything here that is really being infringed on." *See* Trial Tr. 1168:1-9. The parties' conduct is not comparable. While the jury learned that Headwater waited well over a decade to sue Samsung, Headwater, the Court, and Samsung itself all emphasized that this delay does not imply lack of infringement. *See e.g.*, Trial Tr. 157:13-24 (Headwater opening) ("How long it took us to be in a position to discover their infringement and bring this suit has absolutely zero, zero, relevance to infringement"); Trial Tr. 1194:8-13 (jury instructions) ("The presence or absence of pre-suit notice is not a factor to consider in determining whether or not the asserted claims have been directly infringed."); Trial Tr. 1238:10-1239:17 (Samsung closing) ("Now, as you heard, in the United States you don't have to give somebody notice. . . . But . . . it's about credibility").

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that GTalkService was only missing a single limitation for the '733 patent (the "device agent identifier" limitation) and two limitations of the '117 patent (the "application identifier" and "secure interprocess communication" limitations). The evidence shows otherwise. To the extent the GTalkService system does not anticipate the asserted claims, the asserted claims are invalid as obvious in view of GTalkService in combination with the WAP push architecture and/or Kalibjian. Dr. Foster explained that WAP discloses application identifiers and Kalibjian discloses secure interprocess communications (secure "IPC") using cryptographic techniques.

1.   *Evidence at Trial Concerning GTalkService*

Samsung presented undisputed evidence that GTalkService is the predecessor to FCM and that it was released before the priority dates of the '733 and '117 patents. Trial Tr. 710:1-14, 850:8-18, 851:4-9; JX-51; JX-9-0003, 0042, 0124, 0128, 135, 140, 158-163; Ex. 1 (DTX-7.6, 7.19, 7.25); Ex. 2 (DTX-8); Ex. 3 (DTX-9). And Samsung established that GTalkService and FCM were the same in all material respects:

> Q. Now, has the process of sending push messages through FCM changed over the years since the first generation of GtalkService?
>
> [Mr. Hansen:] We've added features and functionality over the years, ***but the core architecture has stayed the same***.
>
> Q. So by core architecture, what do you mean?
>
> A. Yeah. There's two components to it. ████████████████████ ██ ████████████████████████████████████ ices. And the second part is the persistent aggregated connection that allows us to send multiple apps data over the single connection.
>
> Q. So starting at 2008, that aggregated push messaging channel, multiple apps could send push messages over that same channel. Is that correct?
>
> A. Correct.

Trial Tr. 710:17-711:8;

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Q. Now, how would the GtalkServices system have sent a push message, for example, to Gmail back in 2008?

[Dr. Foster:] ***Essentially in the same way as is done today with the [Firebase] cloud messaging***. So the application server would send a message to a request server, the request server would identify the appropriate connection server, and send the message there. That would then package the message up and transmit it to the appropriate -- or to the targeted end-user device.

Trial Tr. 852:3-10; *see also id.* at 854:25-855:4 ("Q. Now, . . . the push messaging system elements we've been focusing on, package names, applications, intents, are there material differences between the original version and the current versions? A. No, there are not."); 717:11-21; JX-51.

Like FCM, multiple Google apps used GTalkService to receive push messages, such as Gmail, Contacts, Chat, and Calendar:

Q. What were the apps that use the GtalkService on this T-Mobile G1 back in 2008?

[Mr. Hansen:] That would have been the ***Google Talk/Chat app*** that would have been the ***Gmail app, the Calendar app, and the contacts app***.

Q. Okay. So on the T-Mobile G1 when the Gmail app sent messages to the phone, would those push messages go to the Gmail app?

A. Yes.

Q. Would those push messages go to the other three apps that were on the phone?

A. To clarify, you're saying with the Gmail push messages go to the other apps like contacts app?

Q. Yeah.

A. No.

Q. Okay. And that would have been true for the other three apps as well. Right? So each app would get the message it was supposed to get. Is that right?

A. Correct.

Trial Tr. 712:18-713:11. Each push message included information that the phone used to route the messages to the right application:

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Q. Now, when push messages arrive at the phone, how does the phone know which app to route a particular message to?

[Mr. Hansen:] *So there is information in the message that tells us which app to deliver that message to*.

Q. And has that been true since 2008?

A. Yes.

Trial Tr. 711:9-17;

Headwater argued at trial: (1) for both the '733 and '117 patent, GTalkService did not use package name (*i.e.*, application name) and therefore was not able to ensure delivery of messages to the right application, while FCM used package name which ensured that messages would go to the right application, and (2) for just the '117 patent, ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ ▮▮▮▮▮▮▮▮▮▮▮▮▮▮ and thus FCM was more secure. *Id.* at 1073:7-1074:12, 1075:3-17 (de la Iglesia). The setPackage property sets the application package name to allow a push message to be targeted to a particular application, so these two arguments boil down to the same: Headwater alleged that GTalkService did not use package name while FCM does. Based on this one difference, Headwater argued that GTalkService lacked a device agent identifier as required by the '733 patent and that it lacked an application identifier and a secure IPC as required by the '117 patent. *Id.* at 858:2-859:10 (Foster). But Headwater's expert's say-so does not make it true. Clear and convincing evidence—by way of expert testimony from both Samsung and Headwater, along with supporting documentary evidence—established that GTalkService *did use package name* to identify the application to which the push message was delivered, meaning GTalkService satisfied all of the asserted claims' limitations.

2.   *Samsung Proved the Asserted Claims Are Anticipated*

Samsung showed by clear and convincing evidence that the asserted '733 and '117 patent claims are anticipated by GTalkService on a limitation-by-limitation basis. Under Headwater's

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interpretation of the claims—which eschews the requirements for the push message content to be delivered to a device agent (*see* Section IV.A.3, *supra*)—GTalkService discloses each and every limitation of the asserted claims of the '733 and '117 patents.

(a)   GTalkService Anticipates the '733 Patent's Asserted Claims

As shown in the chart below, the unrebutted evidence at trial showed that GTalkService anticipates each asserted claim of the '733 patent.

Claim Element	Evidence
1[pre], [a]	Dr. Foster testified that GTalkService used a persistent Internet connection between the mobile devices and a connection server, and that this persistent connection used TLS encryption. Trial Tr. 823:11-17, 849:23-25, 850:19-851:3, 862:13-23, 712:11-713:14; *see also id.* at 711:18-21, 712:16-22, 713:12-14, 716:11-13, 718:3-7, 722:18-25.
1[b]	Dr. Foster testified that GTalkService used the package name as a device agent identifier. Trial Tr. 862:24-863:5; *see also id.* at 854:25-855:4, 717:11-21; JX-51, 711:9-17, 720:1-21, 729:11-18, 730:13-17, 861:3-22, 872:4-6; JX-9-0039; JX-72 (GOOG-HW103-SC00389).
1[c], [d], [e], [f]	Dr. Foster testified that GTalkService had a secure communication link, so a message can be received at the device link agent which can extract the device agent identifier. Trial Tr. 863:6-14, 853:4-854:3; *see also id.* at 716:11-13, 854:25-855:4, 717:11-21; JX-51, 711:9-17, 720:1-21, 729:11-18, 730:13-17, 861:3-22, 872:4-6; JX-9-0039; JX-72 (GOOG-HW103-SC00389).
1[g]	Dr. Foster testified that GTalkService used the intent mechanism to deliver messages to applications based on the package name. Trial Tr. 863:15-20, 853:4-854:3; *see also id.* at 854:25-855:4, 717:11-21; JX-51, 711:9-17, 720:1-21, 729:11-18, 730:13-17, 861:3-22, 872:4-6; JX-9-0039; JX-72 (GOOG-HW103-SC00389).
7	Dr. Foster testified that GTalkService could be used for service offers. Trial Tr. 866:5-11.
19	Dr. Foster testified GTalkService generates a notification and displays it on a user's screen. Dr. Foster also showed documentation and a video clip showing the same.

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Claim Element	Evidence
	Trial Tr. 866:14-25.

(b)   GTalkService Anticipates the '117 Patent's Asserted Claims

As shown in the chart below, the unrebutted evidence at trial showed that GTalkService anticipates each asserted claim of the '117 patent.

Claim Element	Evidence
1[pre], [a], [b], [c]	Dr. Foster testified that GTalkService involved request servers, connection servers, and mobile devices constituting a network system. Trial Tr. 864:10-24; *see also id.* at 711:18-21, 712:16-22, 714:10-22.
1[d]	Dr. Foster testified that the network message server, which in Headwater's view is ████████████████████████████ ███████████████████████████████ . Trial Tr. 864:25-865:8; *see also id.* at 714:10-22.
1[e]	Dr. Foster testified that the connection servers, part of the network message server in Headwater's view, generate messages that are ready to send to the end-user devices. Trial Tr. 865:9-15; *see also id.* at 714:10-22, 716:11-13, 854:25-855:4, 717:11-21; JX-51, 711:9-17, 720:1-21, 729:11-18, 730:13-17, 861:3-22, 872:4-6; JX-9-0039; JX-72 (GOOG-HW103-SC00389).
1[f]	Dr. Foster testified the connection servers then transmit the message to the end-user devices. Trial Tr. 865:16-20; *see also id.* at 714:10-22, 716:11-13, 854:25-855:4, 717:11-21; JX-51, 711:9-17, 720:1-21, 729:11-18, 730:13-17, 861:3-22, 872:4-6, 722:18-25; JX-9-0039; JX-72 (GOOG-HW103-SC00389).
1[g], [h], [i]	Dr. Foster testified that, under Headwater's interpretation, the device messaging agent receives the messages, maps the application identifier to a software process corresponding to an application and forwards that message using an intent. Trial Tr. 865:21-866:2; *see also id.* at 713:2-7, 713:12-14, 716:11-13, 718:3-7, 854:25-855:4, 717:11-21; JX-51, 711:9-17, 720:1-21, 729:11-18, 730:13-17, 861:3-22, 872:4-6; JX-9-0039; JX-72 (GOOG-HW103-SC00389).
2, 12, 16	Dr. Foster testified that in GTalkService, mobile connection servers could use a reliable message queue to buffer message requests and transmit those collected requests after a device is reconnected, and that it was the device that initiated the secure connection back to the server.

Claim Element	Evidence
	Trial Tr. 867:1-18; *see also id.* at 718:21-719:1.

> 3.   *Headwater Cannot Evade Invalidity of the '733 Patent Because
> GTalkService and the Accused Firebase Cloud Messaging Are Identical in
> All Material Respects*

For the '733 patent, Headwater disputed the presence of only a single claim element in

GTalkService, *i.e.*, the "device agent identifier." But Headwater's own infringement theory

accusing Google's FCM of infringement necessarily renders the '733 patent invalid because

GTalkService and FCM are identical in all material respects, particularly with respect to the

"device agent identifier" element. Headwater accused an application identifier, the "package

name" (*see* Section IV.A.2, *supra*) as satisfying the '733 patent's "device agent identifier"

requirement. As detailed above concerning noninfringement, a package name is not a "device

agent identifier" because it identifies an application and not the requisite device agent. But if

Headwater is correct on infringement for the "device agent identifier," then no reasonable jury

could simultaneously conclude that GTalkService lacked a "device agent identifier."

Samsung unequivocally established that GTalkService used a "package name" to identify

applications to which to deliver push messages in materially the same way as FCM:

> Q. Now, when push messages arrive at the phone, how does the phone know which
> app to route a particular message to?
>
> [Mr. Hansen:] *So there is information in the message that tells us which app to
> deliver that message to*.
>
> Q. And has that been true since 2008?
>
> A. Yes.

Trial Tr. 711:9-17;

> Q. [] All right. So in GtalkService, what was that -- what was the name of that
> piece of information in the push messaging app that identified which app was
> supposed to get that push message?

A. That was action name.

. . .

Q. Are you familiar with something called a package name in Android?

A. . . . Yes, that identifies the app.

Q. . . . Now, did package names exist in 2008?

A. Yes.

Q. And in GtalkService, could app developers use the *package name* inside the action name to help route the message to the right app?

A. Yes. As a matter of fact, *that's what we recommended they use for the action name*.

Id. at 720:1-21;

Q. [] Now, today does *FCM* still have an identifier that's used to deliver messages to the app they're supposed to go to?

A. Yes.

Q. What's that identifier called?

A. Package name.

Q. Okay. *Just like GtalkService*?

A. Yeah.

Id. at 729:11-18;

Q. Now, the app ID in GtalkService, remind us what it was called again?

A. Action name.

Q. And could you *use the package name as the action name*?

A. *Yes. And we recommended that in our documentation*.

Id. at 730:13-17; *see also id.* at 861:3-22, 872:4-6.

In addition, Mr. de la Iglesia agreed that package name was used at the time of

GTalkService:

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Q. Well, you're not disputing that package names existed in Android during the GtalkService time, are you?

A. I think all packages -- all applications have to have -- had to have a package manifest that -- and that includes a package name. That's right.

Id. at 1095:4-8. And Google documentation shows that package name could be used to identify applications in GTalkService:

public Intent setAction(String action)
Set the general action to be performed.
Parameters
action   An action name, such as VIEW_ACTION. Application-specific actions should be prefixed with the vendor's package name.

JX-9-0039;

JX-72 (GOOG-HW103-SC00389).

Because GTalkService and the accused FCM system both used package names to identify the applications to deliver messages, GTalkService necessarily meets the '733 patent's "device agent identifier" limitation under Headwater's infringement theory. Headwater's argument thus crumbles—there are no material differences between GTalkService and FCM, and the asserted patents must be invalid if FCM infringes. *CommScope Techs. LLC v. Dali Wireless Inc.*, 10 F.4th 1289, 1299 (Fed. Cir. 2021) ("[A] patent may not, like a nose of wax, be twisted one way to avoid anticipation and another to find infringement."); *01 Communique Lab'y, Inc. v. Citrix Sys., Inc.*, 889 F.3d 735, 742–43 (Fed. Cir. 2018) (holding defendant may argue "if a claim term must be broadly interpreted to read on an accused device, then this same broad construction will read on the prior art"); *Metaswitch Networks Ltd. v. Genband US LLC*, No. 2:14-cv-744-JRG, 2016 WL 3618831, *7 (E.D. Tex. Mar. 1, 2016) (citing *Vanmoor v. Wal-Mart Stores, Inc.*, 201 F.3d 1363, 1366 (Fed. Cir. 2000)) ("When the defendant contends the patent is invalidated by the accused

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product itself, the patentee's infringement allegations operate as a concession that the accused

product meets the limitations of the asserted claims.").

> 4.   *Headwater Cannot Evade Invalidity of the '117 Patent Because GTalkService and the Accused Firebase Cloud Messaging Are Identical in All Material Respects*

For the same reasons that GTalkService discloses the "device agent identifier" under

Headwater's interpretation of the '733 patent, GTalkService also discloses the '117 patent's

claimed "application identifier." Regarding the "secure interprocess communication" limitation,

Headwater's infringement theory depended on mapping the "secure interprocess communication"

limitation to FCM's use of ████████████████████ :

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Trial Tr. 322:25-323:3;

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███
██████████████████████

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Id. at 324:3-7. Thus, Headwater argued for infringement purposes that the use of ██████████████

is what makes a communication a ***secure*** interprocess communication.

At the same time, Headwater claimed that, because GTalkService did not have the exact

same "setPackage" property, it could not have a secure IPC service. *Id.* at 1074:9-12, 1096:8-14

(de la Iglesia). But the "setPackage" property simply sets the package name, and GTalkService

also indisputably used a package name, as detailed above with respect to the '733 patent. *See, e.g.,*

id. at 711:9-17 (Hansen) ("So there is information in the [GTalkService] message that tells us

which app to deliver that message to."), 720:1-21 (explaining Google recommended the use of

"package name" in GTalkService to route messages), 730:13-17 (same), 729:11-18 (testifying FCM uses same identifier). Thus, the evidence at trial revealed no material differences between the GTalkService prior art and the accused FCM system as they relate to the '117 patent's asserted claims.

Headwater suggested GTalkService did not have a *secure* IPC service, pointing to a temporary period in which GTalkService was suspended from developer use due to the need for a security patch. Trial Tr. 329:5-15. But no reasonable jury could have accepted that argument for at least two reasons. First, Headwater misleadingly argued that the supposed lack of a secure IPC was the reason for the security patch. *Id.* But the evidence did not support this theory. Google's engineer, Mr. Hansen, explained that the reason for GTalkService's temporary suspension was an issue concerning sender authentication of messages received by the network server from an application server; it had nothing to do with whether the transmission from the network server to the user's device was secure, which is what the claims require:

> Q. (BY MR. YANG) Now, it says here on this release note that there was security risks inherent to accepting arbitrary data from outside the device. Do you see that?
>
> A. Yes.
>
> Q. Okay. Now, what's that referring to?
>
> A. That's referring to the challenge of *how do we validate the senders* of these push messages that I referred to earlier.
>
> Q. Okay. And the fix for that was being able to verify who they were. Is that right?
>
> A. Right, being able to verify the *senders*.
>
> Q. Okay. And that fix that we're talking about being able to verify the senders, was that inside the Android device or outside the Android device?
>
> A. That was *on the server side*.

Trial Tr. 724:15-725:3.

Second, Headwater's expert explained that the claimed security requires security for a particular purpose. *Id*. 1099:2-5 (de la Iglesia) ("[T]he claim requires a security for the purpose – to meet the purpose"). But Mr. Hansen testified that there was no security issue with respect to using package name as action name in GTalkService, and that GTalkService was secure for its purpose. *Id.* at 730:16-732:6. Not only was Mr. Hansen's testimony undisputed, Headwater did not identify any actual security issues related to the secure IPC of GTalkService. Thus, Headwater's sideshow about GTalkService being temporarily suspended from use by third-party developers had nothing to do with the secure IPC limitation, which the '117 requires to be the service from the network message server to the user device.

5. *Samsung Proved the '733 and '117 Asserted Claims Were Obvious*

To the extent GTalkService does not itself anticipate the asserted claims, Samsung also moves for JMOL that the asserted claims are invalid as obvious in view of GTalkService alone or in combination with WAP and/or Kalibjian. As discussed above, Headwater argued that GTalkService did not use a "package name" when sending push messages and relied on this feature as the key distinction between the prior art and the patents. *See* Section IV.A.3-4, *supra*. But the Google witness, Mr. Hansen, provided unrebutted testimony that Google recommended that application developers use "package name" to send push messages through GTalkService to mobile device applications. *See* Trial Tr. 720:1-21. It is difficult to imagine a more straightforward motivation to combine: an instruction direct from the prior art developer to implement that art in the way that patentee says would practice its invention.

Additionally, Dr. Foster testified:

Q. Now, we talked a little bit about application identifiers. Was that something that was well-known before the Headwater patents?

A. Yes, certainly.

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Q. And what do we see here at DDX 264?

A. Yeah. This is one reference that I wanted to put forward. So this is – it's a technical specification. It's actually sort of a standard developed by a community for what's called *the wireless application protocol*, widely used for some time. And, you know, it *refers to the use of an application identifier to identify an application*.

Q. And we've heard some discussion about security techniques. What do we see here on slide 130?

A. Yeah. So this is a figure and the cover page of – and some text from a patent awarded to a fellow called *Kalibjian* in 2007. And there *he describes a method for securing communications between two processes running on a single device by using cryptographic techniques*.

Q. And is this DTX 12?

A. That's right, yes.

Q. Now, was it *well-known before the patents in this case to secure communications and to use application IDs to identify applications*?

A. *That's right, yes*.

Q. And if somebody came along and wanted to make a system and needed to do those things, were techniques available?

A. They were, yes.

Q. Could a person have combined a later push system to add security or application IDs if they wanted to?

A. They could have, yes.

Q. Would that have been obvious to you?

A. It would have been, yeah.

Trial Tr. 870:18-871:24; *see also* DTX-12; Ex. 4 (DDX-264).

Specifically, based on Dr. Foster's testimony, to the extent GTalkService does not disclose the use of application identifiers to identify an application, such an identifier was already well known and would have been obvious to implement with GTalkService. Further, to the extent GTalkService does not disclose a secure interprocess communications, Kalibjian discloses secure

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interprocess communications using cryptographic techniques, and Dr. Foster explained that it would have been obvious to implement GTalkService with Kalibjian's techniques.

> ### 6.   Alternatively, the Court Should Grant a New Trial on Invalidity and Infringement

If the Court does not grant JMOL of invalidity, it should alternatively grant Samsung a new trial on liability due to the absence of a jury instruction on the principles set forth by *01 Communique Lab'y, Inc. v. Citrix Sys., Inc.* with respect to assessing invalidity and noninfringement. 889 F.3d at 742–43. *01 Communique* instructs that while "an accused infringer cannot defeat a claim of literal infringement or establish invalidity merely by pointing to similarities between an accused product and the prior art. . . . ***This does not, however, preclude a litigant from arguing that if a claim term must be broadly interpreted to read on an accused device, then this same broad construction will read on the prior art.***" *Id*.; *see also id.* ("[W]hen an accused product and the prior art are closely aligned, it takes exceptional linguistic dexterity to simultaneously establish infringement and evade invalidity."). This trial was a paradigmatic example of where a jury should be instructed on this principle—as the evidence showed that FCM functioned the same in all relevant aspects as its prior art predecessor, GTalkService. But the Court overruled Samsung's request for an instruction that "to the extent they find infringement of the accused product . . . under [a] broad application [of] the claim . . . for the same reasons the claim can be invalid with respect to comparison to the prior art." Trial Tr. 1162:6-15. Samsung respectfully requests a new trial due to the omission of its requested instruction.

In addition, to the extent the Court agrees the jury's liability findings cannot stand even with respect to one of the two accused systems—either FCM or SPP—Samsung is entitled to a new trial on liability. Samsung objected that the verdict form did not provide separate infringement questions for each accused system, and the Court overruled Samsung's objection. *Id.* at 1172:15-

22. The Federal Circuit recently held in *Optis Cellular Tech., LLC v. Apple Inc.* that a verdict form which does not permit the jury to separately answer as to infringement on a patent-by-patent basis violates a defendants' Seventh Amendment rights, because it "erroneously required an affirmative answer even in a situation where all jurors did not agree that the same patent was being infringed." No. 2022-1904, 2025 WL 1680253, at *6 (Fed. Cir. June 16, 2025). Analogously here, the verdict form required the jury to answer "Yes"—"even in a situation where all jurors did not agree that the same [system] . . . infringed." *Id.*

C.   The Court Should Enter Judgment as a Matter of Law of Invalidity for the '117 Patent Based on Lack of Written Description

The '117 patent's asserted claims lack written description support as a matter of law because the specification fails to support the claim element of "the network message server configured to receive [requests to transmit application data] from each of a plurality of ***network application servers***." JX-3.198 (claim 1).

In March 2009, Headwater filed the nearly 200-page specification that appears in the '117 patent. JX-3 at Related U.S. Application Data. This specification discloses ways in which a mobile device's capabilities could be remotely "controlled" and ways that "billing" could be done on a granular level depending on a customer's usage. *See, e.g.*, JX-3 at 1:48-55, 6:19-24, 8:16-23, 9:52-59, 14:37-43, 53:10-17, 66:4-16. The "network application server" term is nowhere in this 2009 specification. Ex. 5 (JX-4.8-249). Six years later, on March 24, 2015, Headwater filed continuation application no. 14/667,516, containing one claim. Ex. 5 (JX-4.248). Then, on March 25, 2015, Headwater cancelled that claim and amended the application to add: (1) claims with, *inter alia,* a network message server receiving requests from a "network application server" and (2) an Abstract using this term. Ex. 5 (JX-4.363-369); Trial Tr. 890:11-14 (Foster).

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The as-filed specification does not support the claim limitation of a "network message server configured to receive [requests to transmit application data] from each of a plurality of *network application servers*." Headwater claims this element is disclosed in Figure 16. Trial Tr. 214:17-20 (Raleigh) ("Q. Okay. And you agree that figure 16 explains what is going on in the supporting embodiments that support the limitations of the claims. Isn't that right? A. This functional diagram has elements that are claimed."). But, on its face, this figure does not illustrate application servers sending requests to transmit application data to a network message server. *See* JX-3.28 (Figure 16).   Instead, it illustrates how various "agents" communicate with their corresponding servers to control aspects of mobile device operation. *See id.* (e.g., "access control integrity agent," "billing agent," "policy implementation agent" versus "access control integrity server," "billing event server," "policy management server").

"Applications" appear in the specification only as part of the device environment in which the purported inventions are used, nothing more. The backbone of the claimed inventions are the "service processor" and "service controller," shown as elements 100 and 122 in Figure 16. *See* JX-3.28; JX-3.117 at 2:48-50 ("FIG. 16 is a functional diagram illustrating a device based service processor and a service controller in accordance with some embodiments"); JX-3.122 at 11:21-24 ("In some embodiments, a virtual network overlay includes a device service processor, a network service controller, and a control plane communication link to manage various aspects of device based network service policy implementation."). Applications, on the other hand, are depicted as elements 1602, 1604, and 1605, outside of both the "service processor" and "service controller." JX-3.28. Headwater itself confirmed at the claim construction hearing that the Figure 16 agents are distinct from applications. Dkt. No. 178-7 at 33:12-23 (admitting that Headwater is not reading "device agent" to cover what is ordinarily understood as an application); *see also* Dkt. No. 118

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(Claim Construction Order) at 12, 19 (holding "'device agents' and 'app[lications]' clearly have different meanings" and noting that Headwater agreed that "downloadable apps are not 'device agents' themselves, but suggested that they might include 'device agents'").

Samsung's expert testimony at trial on the lack of written description support for the "network application server" limitation went largely unrebutted. Dr. Foster provided his opinion that no portion of the specification supports the limitation of receiving requests from application servers. *See* Trial Tr. 803:8-808:13, 890:2-10. Mr. de la Iglesia provided only conclusory testimony that Figure 16, Figure 64, and column 69 were "relevant" to this limitation. *See id.* at1083:3-22. Nowhere did he explain *how* those passages are supposedly relevant or support the claim elements.

Because the "network application server" is not disclosed in the original specification, the claims improperly capture new matter. *See Agilent Techs., Inc. v. Affymetrix, Inc.*, 567 F.3d 1366, 1379 (Fed. Cir. 2009) ("The written description doctrine prohibits new matter from entering into claim amendments, particularly during the continuation process."); *Capon v. Eshhar*, 418 F.3d 1349, 1357 (Fed. Cir. 2005) ("[T]he requirement serves both to satisfy the inventor's obligation to disclose the technologic knowledge upon which the patent is based, and to demonstrate that the patentee was in possession of the invention that is claimed."). The later addition of "network application server" to the Abstract and claims cannot cure this flaw. *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1329 (Fed. Cir. 2000) (Because "amended claims define the invention, . . . support for the invention must be found in the specification as filed, and [] the amended claims c[an]not be used to provide that support."); *In re Wright*, 866 F.2d 422, 424 (Fed. Cir. 1989) ("When the scope of a claim has been changed by amendment in such a way as to justify an assertion that it is directed to a different invention than was the original claim, it is proper to

inquire whether the newly claimed subject matter was described in the patent application when filed as the invention of the applicant. That is the essence of the so-called 'description requirement' of § 112, first paragraph."). Thus, Headwater may not point to either of the claims or Abstract as offering written description support because neither was part of the original specification.

D.   Samsung Is Entitled to JMOL, or Alternatively a New Trial, on the Issue of Damages

Headwater's damages theory was utterly flawed from the outset, and the jury award based on it cannot be sustained. That is unsurprising because the premise of its theory was purported battery-life savings attributable to an invention claimed in patents that do not even mention the word battery a single time, much less battery-life savings. This omission is perhaps why none of Headwater's experts isolated the incremental value attributable to the asserted patents in performing their analysis—a fundamental requirement for a damages award to stand. In fact, by Headwater's own admission, the incremental benefit of the asserted patents was security (Trial Tr. 441:22-442:3 (de la Iglesia))—a benefit Headwater and each of Mr. de la Iglesia, Dr. Groehn, and Mr. Dell failed to measure at all. *See, e.g.*, *id.* at 442:11-17 (de la Iglesia). Compounding the issue, Mr. Dell then applied his own adjustments—one based on an 80% opt in rate unsupported by the record in this case, and one based on Samsung's return on invested capital that leads to Headwater's claiming an 85% share of the profits supposedly attributable to the use of the claimed inventions. *Id.* at 547:16-21, 548:15-549:22 (Dell).

For the reasons discussed below, the jury's damages award is premised on fundamentally flawed and facially unreasonable expert opinions and arguments from Headwater, none of which can constitute sufficient evidence to sustain the verdict. As a result, the Court should grant Samsung JMOL that Headwater is entitled to no damages. *See Promega Corp. v. Life Techs. Corp.*, 875 F.3d 651, 666 (Fed. Cir. 2017) ("[A] patent owner may waive its right to a damages

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award when it deliberately abandons valid theories of recovery in a singular pursuit of an ultimately invalid damages theory."). The jury's $278,791,460 damages award is unsupported for multiple independent reasons, each of which was raised in Samsung's Rule 50(a) motion. Trial Tr. 1136:21-1143:25. Even if the liability verdict stands, Samsung is entitled to JMOL, or at least a new trial, on damages because the evidence does not support the damages award reached by the jury. Alternatively, the Court should grant JMOL that the only legally proper award supported by the evidence is $6.94 million—the figure offered by Samsung's expert Dr. Perryman—or it should grant a new trial conditional on remittitur of the damages award to that amount.

1.   *Headwater Failed to Provide Evidence of Damages Based on the Incremental Value of the Patented Technology*

Federal Circuit law required Headwater to tie its proof of damages to "the claimed invention's footprint in the marketplace." *VirnetX, Inc. v. Cisco Sys.*, 767 F.3d 1308, 1327 (Fed. Cir. 2014) (quoting *ResQNet.com, Inc. v. Lansa, Inc.,* 594 F.3d 860, 869 (Fed. Cir. 2010)). It is an "essential requirement" that "the ultimate reasonable royalty award must be based on the incremental value that the patented invention adds to the end product." *Ericsson, Inc. v. D-Link Sys.*, 773 F.3d 1201, 1226 (Fed. Cir. 2014); *see also CSIRO v. Cisco Sys.*, 809 F.3d 1295, 1301 (Fed. Cir. 2015) ("[D]amages awarded for patent infringement must reflect the value attributable to the infringing features of the product, and no more."). The Court's instructions required any damages to "be based on the value attributable to the patented invention," which requires separating "the value of the allegedly infringing features from the value of all other features." Trial Tr. 1210:1-21. And Headwater agreed "the proper measure of damages, reasonable royalty damages, are the extent – the benefits relative to the next available alternative." *Id.* at 1168:21-1169-1. Headwater failed to satisfy this fundamental requirement in at least four ways.

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(a)   Mr. de la Iglesia's Battery Calculations Did Not Measure the
Incremental Contribution of the Patents

First, Mr. Dell's damages opinion relied on Mr. de la Iglesia's opinions as to the alleged

technical benefits of the asserted patents, but the evidence confirmed that the battery life savings

calculations Mr. de la Iglesia performed do not reflect a proper apportionment of the benefit of the

asserted patents over the prior art.

Mr. de la Iglesia testified unequivocally that he attempted to calculate the incremental

benefit of the asserted patents by comparing how much battery a phone saves by using aggregated

push messaging instead of an older technique known as polling or pulling. Trial Tr. 439:20-24

("Q. And you in your analysis you tried to calculate how much battery a phone saves by using

aggregated push instead of polling. Correct? A. Yes.").

Importantly, however, Dr. Raleigh testified that he did not invent aggregated push

messaging. *Id*. at 221:3-6; 12-14 ("Q. So you believe having an aggregated push messaging

channel is the subject of the patents in this case. Correct? A. Okay. Now that I understand your

context, and yes, I would agree with that. . . . Q. And you did not invent aggregated push

messaging either because that was known before your patent. Correct? A. Sure."). Mr. de la

Iglesia similarly admitted that aggregated push messaging existed before the asserted patents. *Id.*

at 441:1-7 ("Q. Well, in fact, aggregated push messaging period, that existed before the patents in

this case. Isn't that right? A. In some flavors, yes."). Therefore, fatally to Headwater's damages

methodology, Mr. de la Iglesia admitted that other aggregated push messaging systems existed

before Dr. Raleigh's invention in the prior art, but that he did not calculate the benefit of Dr.

Raleigh's invention as compared to those prior art systems. *Id.* at 442:14-17 ("Q. You didn't

compare push techniques that weren't secure, prior push techniques that were not secure, to

polling. Isn't that right? A. No. This is polling versus secure push only."). In other words, Mr.

de la Iglesia credited the asserted patents with the *entire* benefit of aggregated push messaging over a polling system, when he should have measured the *asserted patents'* aggregated push messaging system over known aggregated push messaging systems.

Samsung presented numerous examples of aggregated push messaging systems known before the asserted patents issued—including GTalkService—but Mr. de la Iglesia failed to measure the incremental benefit of the asserted patents' system against any of them. Trial Tr. 442:14-17. Mr. de la Iglesia sought to excuse this failure by claiming only that he did not need to measure the invention of the asserted patents against the prior aggregated push messaging systems because they were insecure, and thus not feasible. *Id*. at 443:7-13, 438:22-439:6. The evidence showed that Headwater believed the point of novelty of the asserted patents over the prior art systems was security. *Id.* at 441:18-25 (de la Iglesia). But if that is true, Headwater should have quantified the security benefit it claimed over the known aggregated push messaging systems rather than measuring the supposed benefit of all aggregated push messaging systems over polling. Because it did not do so, it failed to present evidence tying the requested damages to the specific claimed improvement over the prior art.

Mr. Dell's damages needed to reflect the value of only the patented invention, not unpatented or known features. *See VirnetX*, 767 F.3d at 1329; *ResQNet.com*, 594 F.3d at 869. Because Mr. de la Iglesia—and thus, Mr. Dell—attributed the entire value of aggregated push messaging to the asserted patents, without any effort to separate that value from prior art aggregated messaging systems, the jury award for the asserted patents cannot stand. Without any evidence of incremental value of the asserted patents to the accused Samsung products, judgment as a matter of law is required on this basis alone.

        (b)   Dr. Groehn's Survey Was Methodologically Faulty, and Unconnected to the Alleged Incremental Benefit of Battery Life Savings from the Asserted Patents

Second, Headwater failed to present any legally sufficient evidentiary basis for a reasonable jury to award damages because its damages theory requires use of the unreliable, irrelevant, and unhelpful opinions offered by Dr. Andreas Groehn. Mr. Dell's damages opinion relied on Dr. Groehn's opinions as to the alleged incremental profit provided by battery life, but Dr. Groehn's conjoint survey and regression analysis do not reflect a measurement tied to only an apportioned benefit of the asserted patents over the prior art.

Dr. Groehn's methodologically flawed survey fails to isolate the value of the supposed technical benefit and thus fails to properly apportion. Dr. Groehn's flawed opinions did not apply reliable principles and methods to the facts of the case because (1) he recycled his survey from a prior case, which related to different technology, meaning his method was not tied to the facts of this case; (2) his survey relied on inherently vague, subjective concepts that are divorced from any proven incremental benefit of the asserted patents, including surveying "standard battery life," which was undefined and unclear to survey respondents; and (3) conjoint analyses (which are focused on *relative values*) are unreliable for use in estimating specific prices for specific incremental changes in isolated features, particularly in complex devices like smartphones.

Federal Rule of Evidence 702 requires that "the expert's opinion reflects a reliable application of the principles and methods to the facts of the case." Yet Dr. Groehn's opinion was permitted at trial despite failing to tie his study from the -422 case to the facts of this case, which is undisputedly about different technology. Dr. Groehn testified in this case to a survey and conjoint analysis he prepared for a different case involving different patents and different technology. Trial Tr. 488:2-489:19, 489:24-490:4. He admitted that his assignment (in both cases) was generically to "determine the value of battery life, o[r] extension of battery life." *Id.* at 468:20-

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23. Dr. Groehn readily admitted that he reused in this case the exact same conjoint survey from a prior case (the -422 case), and he even confirmed that the survey about which he opined in this case was conducted five months before he was retained for this case. *Id.* at 488:2-489:19. He repurposed his prior work despite agreeing that there are differences between the -422 case and this case. *Id*. at 489:24-490:4. He further confirmed his repurposed survey and analysis was so generically broad that he did not need to read the patents to perform the analysis. *Id.* at 468:24-469:1 ("not at all"); *id.* at 479:22-24, 481:15-23 (Dr. Groehn does not know whether asserted patents say "a single word about battery life" but that "wasn't relevant to [him] in doing [his] work"). Dr. Groehn also did not expressly include the accused features, namely SPP and FCM, or push notifications in his survey. *Id.* at 483:23-485:16. Dr. Groehn further admitted that his survey "certainly didn't value the difference between push and poll notifications," despite that this was exactly what Headwater's technical expert testified was purportedly the incremental footprint of the asserted patents. *Id*. at 442:11-17 (de la Iglesia), 485:18-20 (Groehn).

Dr. Groehn obviously could not have tailored his survey to the facts of this case because, at the time of his report, he did not know what features were accused of infringement and had not read the Complaint. *Id*. at 482:21-483:22. Dr. Groehn confirmed that the only source for his understanding that his survey should measure battery life broadly was Headwater's attorneys. *Id*. at 485:21-486:16. Nevertheless, after explaining how he designed his survey (without any mention or discussion of the asserted patents, accused features, or alleged incremental improvement thereof), Dr. Groehn asserted that this survey enabled him to "calculate the extra profit that Samsung made by using *the technology* that improved battery life." *Id*. at 475:1-4. Dr. Groehn has no expertise or basis to assert his calculations relate to "the technology" because at the time he performed those calculations he did not know what "the technology" was. *Id*. at 482:21-483:22,

479:22-24, 480:15-23, 483:23-485:16. Other testimony confirmed that various other non-accused

"technology" on Samsung devices contributed to or affected battery life, and that the accused

features were not the only features that could or would improve battery life—if at all. *Id.* at 436:10-

437:5 (de la Iglesia), 499:12-20 (Groehn).

Dr. Groehn's vague assertion that his survey measured "the technology" at issue lacks

expertise, is unsupported by his testimony, contradicted by the testimony of other witnesses, and

thus renders his opinions legally insufficient to offer the jury any basis for valuing the incremental

benefit provided by the asserted patents. *See, e.g., Cannon v. BP Prods. N. Am., Inc.*, No. 3:10-

CV-00622, 2013 WL 5514284, at *11 (S.D. Tex. Sept. 30, 2013) (excluding at *Daubert* regression

analysis for similar failure to tie the analysis to the incremental harm (or benefit) at issue, holding

"even if Simons's model could accurately attribute the alleged property value diminution to the

Refinery or to BP or to extraordinary emissions, it could not specifically attribute the diminution

to the conduct for which BP would potentially be liable" (citing *Ponca Tribe of Indians of Okla.*

v. Cont'l Carbon Co., 2009 WL 5842042, at *8–9 (W.D. Okla. Jan. 23, 2009) (finding diminution

calculations from hedonic regression analysis to be "unhelpful and not relevant to [ ] nuisance

claims" in part because they were "not directly tied to the emission events that support Plaintiffs'

claims in [the] lawsuit"))). Accordingly, Dr. Groehn's survey and opinions cannot form legally

sufficient evidence for a reasonable jury to award damages.

In addition, Dr. Groehn did not test "battery life" using any quantifiable, objective metric

and instead asked survey respondents about a subjective "standard battery life," which further

renders his opinion legally insufficient to support a jury damages award. Specifically, Dr.

Groehn's survey asked people to choose between "standard battery life," battery life increased by

5% under normal usage, and battery life increased by 10% under normal usage. Ex. 6 (PDX-

004.7) (citing PTX-362). Without objective definitions of either his feature of interest ("battery

life") or of the levels tested ("standard," "5% more," "10% more"), the survey results are

meaningless. Dr. Groehn admitted that each of his survey respondents (as well as each of the eight

jurors) could all have a different understanding of what "standard battery life" was. Trial Tr.

497:15-498:16; 499:4-11.

In addition to failing to define the baseline of "standard" battery life for his survey

respondents, Dr. Groehn also presented the incremental options of 5% and 10% in percentages,

which do not mimic real life purchasing scenarios when evaluating battery life specifically and

adds additional uncertainty to the survey. Dr. Groehn himself stated that conjoint surveys "should

be designed to mimic real life purchasing scenarios that induce respondents to make purchasing

choices as they would in the marketplace." Trial Tr. 496:11-15. Rachel Roberts, Samsung

Electronics America, Inc.'s corporate representative, confirmed that Samsung advertises its battery

life in terms of hours, or even days—not percentages. *Id*. at 640:13-644:18; *see also* Ex. 6 (PDX-

004.11) (citing Ex. 7 (JX-016) (Samsung internal conjoint survey identifying battery life only in

mAh, i.e., capacity)) and Ex. 6 (PDX-004.12) (citing Ex. 8 (JX-014) (Samsung internal study

evaluating battery life in increments of 8 hours)).[4] Accordingly, the evidence showed that Dr.

Groehn failed to meet his own requirement of mimicking real life purchasing scenarios for

customers evaluating battery life of a Samsung smartphone product because his percentages,

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[4] Tellingly, Dr. Groehn, testifying before Ms. Roberts, indicated he would be surprised to learn
that Samsung advertises battery life in terms of days, which Ms. Roberts then presented and
confirmed during her testimony. Dr. Groehn's lack of awareness of how Samsung advertises
battery life to customers again confirms the legal insufficiency of his survey to mimic real world
purchasing considerations for Headwater's alleged key feature of interest, battery life. Trial Tr.
496:16-25.

particularly when based on an undefined "standard" base, did not mimic real world considerations of battery life.

Finally, a conjoint analysis cannot reliably identify the incremental profit attributable to an change in one individual aspect of a complex real-world market for smartphone devices. Ms. Roberts confirmed that while Samsung does conjoint analysis in some instances, such analysis provides only a "snapshot" of data and does not price the value of any isolated feature. Trial Tr. 658:3-17, 699:19-700:13. Dr. Perryman, Samsung's damages expert, further confirmed that conjoint analysis is not the appropriate method for identifying any alleged incremental value provided by the asserted patents in this case. *Id.* at 1045:24-1046:14. As Dr. Groehn's own sources state unequivocally, "[i]t should be emphasized that conjoint analysis can only estimate demand. Conjoint survey data, alone, cannot be used to compute market equilibrium outcomes such as market prices. . . ." Dkt. No. 181-4 (Allenby 2019) at -81.

Dr. Groehn's survey and subsequent analysis do not recreate the actual competition in the market. For example, the survey does not account for different prices across different retailers of the same smartphones, despite the evidence showing overall phone price is a key purchase driver. Trial Tr. 645:3-17, 647:1-650:18 (Roberts). Dr. Groehn testified that he tested less than all of the features that motivate customer choice in the smartphone market, including numerous non-patented features, and he improperly skewed the primary driver of market demand—brand—by combining brand with model and offering only one flagship model per brand. Ex. 6 (PDX-004.4) (comparing one Samsung option with one Apple option). Regression calculations cannot correct market-divorced survey results such that they could even *estimate* actual market preferences. Dkt. No. 181-4 (Allenby 2019) at -81 ("Conjoint practitioners have chosen the unfortunate term 'market simulation' to describe demand predictions based on conjoint analyses. These practices are not

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simulations of any market outcome and must be understood for their limitations . . . ."); *see also id.* ("Even with existing products for which marketplace data *is* observed, there are many situations in which it is not possible to identify consumer preferences."). Accordingly, Dr. Groehn's conjoint study and analysis is legally insufficient evidence to support the jury's damages award because it is based on an inapplicable and unreliable methodology.

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(c)   Mr. Dell's Additional "Adjustments" Do Not Solve Headwater's Failure to Isolate the Incremental Benefit of the Asserted Patents

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Third, Mr. Dell's additional "adjustments" do not remedy Headwater's fundamental apportionment failure. Mr. Dell testified that he took Mr. de la Iglesia's and Dr. Groehn's calculations and applied two additional adjustments: (1) an "opt-in rate" adjustment estimated at ████ and (2) a "benefit share" split of ████ based on Samsung's return on invested capital ("ROIC"). Trial Tr. 547:1-21; 548:15-549:22 (Dell).

Mr. Dell's "opt-in rate" adjustment does nothing to apportion to the supposed value of the asserted patents. To the contrary, it merely removes sales to consumers who did not use push technology at all, regardless of whether any supposed battery savings relates to the patented technology or not. Trial Tr. 547:1-21 (Dell). Moreover, Mr. Dell arbitrarily plucked his ████ adjustment factor from general alert data and third-party data on push notifications. *Id.* Such arbitrariness cannot masquerade as expert opinion, let alone legally required apportionment.

Next, Mr. Dell reduced his damages figure by applying an ████ "benefit share" factor based on Samsung Electronic Co.'s ("SEC") ROIC to purportedly account for Samsung's "own contributions to the commercialization or success of the accused products." Trial Tr. 548:15-549:22. Mr. Dell provided no evidence why SEC's company-wide ROIC is a proper metric to analyze the parties' relative bargaining share at the hypothetical negotiation. His arbitrary decision to use SEC's ROIC leads to a conclusion that, despite Samsung's significantly greater investment

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to implement and commercialize its products, it has a far lower benefit share at the hypothetical

negotiation— ██████████████████████████ *Id.* This alone illustrates that SEC's ROIC

is an inappropriate measure to use in a benefit share analysis, and contrary to the facts of the case.

Mr. Dell's apportionment thus violates the Federal Circuit's instruction that opinions must be

based on particular facts, not "too crude a generalization." *VirnetX*, 767 F.3d at 1332.

Critically, neither of Mr. Dell's "adjustments" is an accepted method for apportioning the

incremental value specific to a patented invention. He cites no specific evidence from the record

or academic literature to support his ultimate adjustments, nor does he perform any economic

analysis to validate the results of his apportionments. These apportionments, without justification,

are "untethered to the facts." *Apple Inc. v. Wi-LAN Inc.*, 25 F.4th 960, 973-74 (Fed. Cir. 2022)

(holding expert opinion "untethered to the facts," requiring a new trial); *VirnetX*, 767 F.3d at 1332.

(d)   Failure to differentiate damages per patent

Fourth, Headwater's damages theory also failed to properly apportion because Headwater

did not differentiate damages on a patent-by-patent basis. The '733 and '177 patents claim

different subject matter. The '733 patent's asserted claims recite devices, while the '117 Patent's

asserted claims recite systems. *Compare* JX-1-193–94, *with* JX-3-198–99. Thus, the asserted

claims are necessarily directed to different inventions with different elements and requirements.

Headwater failed to offer legally sufficient evidence of damages attributable to each of

these distinct device claims versus system claims, tailored to the separate footprint of each

respective invention, because the evidence shows the same measure of incremental benefits for

both patents. In fact, Headwater's experts did not separate their benefits analysis on a per-patent

basis. *See* Trial Tr. 352:5-19 (Mr. de la Iglesia explaining his battery savings analysis was

generally for "Headwater's patents," without distinction), 602:1-8 (Mr. Dell confirming that "these

patents provide some sort of battery savings"). This is further evidence of Headwater's pervasive

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failure to appropriately tie the damages evidence to only the footprint of the claimed inventions. *Cf. generally Optis Cellular Tech., LLC,* No. 2022-1904, 2025 WL 1680253, at *7 (requiring separate infringement question as to each asserted patent on verdict form because "each of the asserted patents defined a distinct cause of action with distinct asserted claims, not five alternative theories for a single common legal claim"), at *8 ("[W]e have no greater confidence that the jurors unanimously agreed on the total damages award than we do that the jurors unanimously agreed that every asserted claim was infringed.").

Additionally, if the Court grants Samsung's motion with respect to noninfringement or invalidity for one of the asserted patents but not the other, the Court must grant a new trial on damages. The Federal Circuit has held that "where the jury rendered a single verdict on damages, without breaking down the damages attributable to each patent, the normal rule would require a new trial as to damages." *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1310 (Fed. Cir. 2007); *see also VirnetX Inc. v. Apple Inc.*, 792 Fed. Appx. 796, 812 (Fed. Cir. 2019); *WesternGeco LLC v. ION Geophysical Corp.*, 913 F.3d 1067, 1073 (Fed. Cir. 2019) ("[W]hen a jury was told it could rely on any of two or more independent legal theories, one of which was defective, the general verdict must be set aside."). Here, there is no reason to deviate from the "normal rule," especially because the asserted patents claim different subject matter, as explained above.[5]

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[5] For similar reasons, the ongoing *inter partes* review proceeding concerning the '733 patent is likely to warrant vacating the damages award because a damages award based on two patents— each of which is presumed to claim different inventions—cannot be supported if one of the two patents is held invalid. *See Accentra, Inc. v. Staples, Inc.*, 500 Fed. Appx. 922, 931 (Fed. Cir. 2013) ("Because we have vacated the judgment as to two of the three patents, we believe that the proper course is to vacate the damages award in its entirety and remand for further proceedings.").

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2.   *Mr. Dell Disregarded* Georgia-Pacific *Comparable Licenses and Key Evidence, Rendering the Jury Verdict Unsupported*

The jury's damages award also lacks substantial evidentiary support because Headwater's damages theory failed to properly account for key relevant comparable licenses and agreements. Samsung presented evidence that several of its prior license agreements were technically and economically comparable, but Headwater presented no evidence rebutting the technical or economic comparability of ████████████ patents and license. Headwater did not dispute the technical comparability of the licensed ████████████ patents, and its technical expert's testimony regarding the other agreements consisted only of his conclusory, *ipse dixit* opinion that they were not supposedly not comparable. *See* Trial Tr. 357:16-358:25. In *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51 (Fed. Cir. 2012), the Federal Circuit held that a damages award cannot stand when the patentee's expert disregards comparable licenses. 694 F.3d at 79–81; Trial Tr. 1137:23-1138:7. Headwater's expert also confirmed he failed to account for other key *Georgia-Pacific* evidence such as Headwater's only licensing revenues from ItsOn for its entire patent portfolio, and failed to affirmatively consider and incorporate Headwater's agreed Letter of Intent to ██████████████████████. *Compare* Trial Tr. 206:13-207:2 (Dr. Raleigh confirming the only license to Headwater's patents and only payments to Headwater were from ItsOn) *and* Trial Tr. 984:19-986:23 (Dr. Perryman analyzing ItsOn royalty payments in DTX-0003), *with* Trial Tr. 516:17-618:4 (Mr. Dell never mentioning the ItsOn license or royalty payments), *id.* at 557:7-561:9 (sustaining objection finding Mr. Dell had not sufficiently disclosed any opinion on InterDigital to opine on the relevance of the Letter of Intent at trial), *and id.* at 593:8-21 (Dell).

Headwater offered no testimony—from its technical expert or otherwise—disputing the technical comparability of the ████████████ license, and its expert's testimony on the other

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comparable licenses consisted only of conclusory *ipse dixit*. *See* Trial Tr. 357:16-358:25 (Mr. de

la Iglesia testifying that "there were three agreements I looked at," discussing briefly only the

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Networks was indisputably a technically comparable license. Then, Headwater's economic expert,

Mr. Dell, failed to offer any opinions on or incorporate into his analysis the Samsung-SEVEN

Networks license, providing no more than a bare, conclusory confirmation that he did not find the

agreement economically comparable. Trial Tr. 597:2-24. Samsung's Dr. Foster confirmed the

technical comparability, *id.* at 886:13-887:3, and Mr. Perryman offered economic adjustments to

the license to make the license more economically comparable to the hypothetical negotiation, *id.*

at 989:17-991:23, 994:20-995:2.   Headwater's damages evidence is contrary to law requiring

consideration of the SEVEN Networks comparable license and other key evidence relevant to the

Georgia-Pacific analysis, and it was thus legally insufficient to support the damages award.

Headwater's damages evidence further fails to satisfy the requirements of a *Georgia-*

Pacific analysis which could legally support a jury verdict because Mr. Dell further failed to

address or opine regarding Headwater's past licensing, royalty, and agreements relating to its

patent portfolio, all of which are relevant to Georgia-Pacific factor 1. As recently reiterated by the

Federal Circuit, "[o]ne important factor [under *Georgia-Pacific*] is '[t]he royalties received by the

patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.'

Georgia-Pacific, 318 F. Supp. at 1120. 'Actual licenses to the patented technology are highly

probative as to what constitutes a reasonable royalty for those patent rights because such actual

licenses most clearly reflect the economic value of the patented technology in the marketplace.'"

EcoFactor, Inc. v. Google LLC, 137 F.4th 1333, 1340–41 (Fed. Cir. 2025) (en banc) (quoting

LaserDynamics, Inc., 694 F.3d at 79). Mr. Dell purported to use the *Georgia-Pacific* framework,

but he failed to address key pieces of evidence required by this framework—including the InterDigital Letter of Intent and paltry licensing revenue Headwater received from its sole licensee (ItsOn)—thus his opinions are legally insufficient to support the jury verdict.

3.   The Jury's Award Includes Legally Improper Future Damages

Additionally, Samsung is entitled to JMOL of no damages because Headwater presented a legally improper theory based on future damages. Specifically, Headwater's damages theory consisted of a lump sum award based on applying a royalty rate to a base that included projected future sales of accused products. Because these sales projections were inherently speculative, and no evidence suggested the parties would have relied on speculation regarding future possible sales at the hypothetical negotiation, substantial evidence does not support the damages award.

The Federal Circuit has emphasized that the hypothetical negotiation construct must consider what the parties would have agreed to "at the time of the negotiation." *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1327 (Fed. Cir. 2009). While the "book of wisdom" may be used in certain circumstances, damages must be "determined not on the basis of a hindsight evaluation of what actually happened, but on the basis of what the parties to the hypothetical license negotiations would have considered at the time of the negotiations." *Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075, 1081 (Fed. Cir. 1983).

Here, no evidence supported Headwater's future damages theory, including because Headwater did not identify any comparable licenses or transactions in which either party had based a patent license royalty on projection of future sales. Mr. Dell did not explain, or provide any evidence, that the parties to his hypothetical negotiation had ever agreed to a license structure based on that approach. *See Lucent*, 580 F.3d at 1327 ("Parties agreeing to a lump-sum royalty agreement may, during the license negotiation, consider the expected or estimated usage (or, for devices, production) of a given invention, ***assuming proof is presented to support the***

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expectation."); *see also Enplas Display Device Corp. v. Seoul Semiconductor Co.*, 909 F.3d 398, 412 (Fed. Cir. 2018) (reversing JMOL denial because the record lacked substantial evidence for a damages expert's future sales projections of the accused products in support of the lump sum damages awarded by the jury). Moreover, the patent statute itself recognizes that the royalty must be based on "infringement," not based on speculative sales into the future of products that may or may not infringe. *See* 35 U.S.C. § 284. Thus, having chosen to ignore comparable agreements and instead rely on a "future damages" theory calculated as a per unit running royalty on speculative future sales (where there is no infringement yet, by definition), the jury award cannot be sustained.

Moreover, the record confirmed that Mr. Dell's approach required rank speculation and that his projections of future sales were not supported by sufficient evidence. At trial, Mr. Dell admitted that he had to revise his opinions because his initial projections of Samsung's future sales were substantially over-inflated in comparison to 2024 actual sales. For example, his sales projections for one month were off by ██████████. Trial Tr. 583:1-16. Despite these errors, he did not adjust his methodology, further demonstrating that his testimony regarding future sales projections was speculative and insufficient to support the jury's award of damages based on a royalty base that included post-verdict sales.

        4.   *Headwater Failed to Differentiate Damages per Accused Product, Despite Presenting Evidence that Each Were Used for Different Time Periods*

Headwater presented evidence that Samsung allegedly used the two different accused systems during different time periods: ████████████████████████ ██. Trial Tr. 396:13-397:25 (de la Iglesia). However, Headwater failed to present damages calculations or analysis on a per-product basis to the jury. Mr. Dell's testimony did not provide the amount of

damages attributable to the alleged infringement by SPP versus FCM. Mr. Dell offered his opinion

for only both ***patents*** together, without distinguishing as to accused products: "it is my opinion

that the reasonable royalty damages owed to Headwater as a result of Samsung's infringement of

the two patents-at-issue in this case is a discounted lump-sum royalty payment of $696,322,140."

Trial Tr. 523:20-24. Headwater's evidence was silent as to whether or how this total lump-sum

royalty would change if only one of SPP or FCM infringed.

As a result, Mr. Dell's trial testimony did not provide the jury with a legally sufficient basis

for determining damages in the event the jury determined that only one or the other of the accused

products infringed. Samsung objected to the verdict form's failure to permit the jury to indicate a

finding of infringement on a product-by-product basis, which the Court overruled. Trial Tr.

1172:15-22; *see also id*. at 1143:10-19 (raising this issue in support of rule 50(a) motion). At a

minimum, in the event any post-trial proceedings vacate the jury's findings on infringement

liability, the record lacks legally sufficient evidence for isolating the alleged damages for

infringement of one—but not the other—of SPP or FCM. Accordingly, if post-trial proceedings

alter the judgment such that one of the two products does not infringe, Samsung is entitled to

vacatur of the entire damages award.

> 5.   *The Court Should Grant JMOL or a New Trial Because the Jury's*
> *Damages Award Is Unsupported by Legally Sufficient Evidence and*
> *Conflicts with the Great Weight of the Evidence*

The jury's damages award of $278,791,460 is based on legally insufficient evidence and

against the great weight of the evidence. This arbitrary number was not offered by either party,

nor is it supported by the evidence. At trial, Headwater's damages expert Mr. Dell opined that a

royalty rate of $5.00 per infringing sale would be appropriate and urged the jury to apply that rate

to the ▮▮▮▮▮▮ infringing units. Trial Tr. 529:3-10; 561:18-562:1. Mr. Dell's $5.00 rate

allegedly reflected a battery life savings benefit. Samsung's expert, Dr. Perryman, testified that

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the proper damages would be a lump sum ranging between ███████████████████ based on comparable licenses. Trial Tr. 994:20-995:11.

The jury's award is not supported by either of these expert's opinions, nor did the jury have any other record evidence from which it reasonably could have arrived at its award. To the extent that the jury used Mr. Dell's $5.00 per unit rate based on alleged battery saving benefits as a starting point, that rate is unsupported as discussed above. *See supra* §§ D.1. Furthermore, there certainly was no evidence that would have allowed the jury to ***adjust*** that rate to conclude that Samsung would have agreed to a royalty of $278.8 million at a hypothetical negotiation. Mr. Dell did not discuss the *Georgia-Pacific* factors in any meaningful manner—let alone in a way that would have provided the basis for a downward adjustment of the royalty rate. *See generally* Trial Tr. 535:2-557:6; *Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 31–32 (Fed. Cir. 2012) ("[R]eciting each factor and making a conclusory remark about its impact on the damages calculation before moving on does no more than tell the jury what factors a damages analysis could take into consideration . . . some explanation of both why and generally to what extent the particular factor impacts the royalty calculation is needed.").

Beyond the lack of sufficient evidence, Headwater's counsel invited the jury to concoct its own royalty rate—untethered to the evidence—during closing argument:

> ***Now, the royalty rate is up to you***. When you go back and deliberate, we submit that the evidence shows that the reasonable royalty that the parties would have agreed to at that hypothetical negotiation is $5 a unit. ***But it's up to you to determine that. If you determine it's a different number, use that number***. The royalty base is undisputed, but we think this is what it shows. Now, this number gets discounted back because it was paid as a lump sum -- if it would have been paid as a lump sum way back in 2013 -- 2017, I think. So that discount rate is ██ percent. So if you do determine a different lump sum, take a discount of ██ percent and that's your damage number.

Trial Tr. 1231:14-25. This was improper as "an explanation urging jurors to rely on speculation, without more, is often insufficient." *Lucent Techs.*, 580 F.3d at 1327. "Because the verdict was 'clearly not supported by the evidence' and "based only on speculation or guesswork," a new trial is warranted. *Wordtech Sys., Inc v. Integrated Networks Sols., Inc.*, 609 F.3d 1308, 1322 (Fed. Cir. 2010); *see Georgia-Pacific Corp. v. U.S. Gypsum Co.*, 195 F.3d 1322, 1333 (Fed. Cir. 1999) (court may grant a new trial even where the "insufficiency of proof was not enough to grant [a] motion for JMOL").

> ### 6.   Alternatively, the Court Should Grant JMOL That Damages Are No More Than ▮▮▮▮▮▮▮▮

The Federal Circuit has held that reduction of the damages award as a matter of law is required where the plaintiff produced no evidence to support a legally viable damages theory that could allow for an award greater than what the defendant proposed. For instance, in *Tronzo v. Biomet, Inc.*, 236 F.3d 1342 (Fed. Cir. 2001), the Federal Circuit upheld the reduction of a damages award from $7,134,000 to $520, holding that it should not be treated as a remittitur and a new trial on damages was not otherwise permitted. The court in *Tronzo* explained that "the district court did not reweigh any evidence, nor did it exercise its discretion in computing the damages award[,]" and instead "awarded the maximum damages possible given the lack of competent evidence" for an award greater than $520. *Id.* at 1351. While the plaintiff argued for more based on "lost business opportunities," the evidence "that Dr. Tronzo attempted to rely on was too remote and inconclusive to reflect the actual injury incurred by Dr. Tronzo or to measure his damages." *Id.*

This case falls squarely within the rationale of *Tronzo*. Headwater made a strategic choice to pursue a damages theory that is unsupportable as a matter of law and eschewed any alternative damages theory that could be supported by the law and the evidence. No legal or logical basis exists on which to allow Headwater a second bite at the apple. *See Promega*, 875 F.3d at 666

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(explaining plaintiff may not be entitled to damages or a new trial where it fails to put on a legitimate damages case). The only reliable evidence of damages in the record came from Dr. Perryman, who analyzed the real-world licenses Samsung entered with ████████████████████ ██████████████████████, and concluded that the parties would have agreed at the hypothetical negotiation to a lump sum royalty of no more than ████████ Tr. 1172:24–1173:1. Thus, if the Court does not grant JMOL of no damages, it should grant JMOL of $6.94 million in damages.

7.   *If the Court Does Not Grant JMOL, Samsung Is Entitled to a New Trial on Damages*

If the Court does not grant JMOL on the above issues illustrating the legal insufficiency of the evidence to support the damages award, Samsung alternatively moves for a new trial on damages for each of the specific grounds set forth above, each of which demonstrate that the jury's damages award conflicts with the great weight of the evidence. *See supra* §§ IV.D.1-6.

In addition, if post-trial proceedings require vacating the judgment on infringement or invalidity for either asserted patent but not the other, a new trial on damages is appropriate. The Federal Circuit has held that "where the jury rendered a single verdict on damages, without breaking down the damages attributable to each patent, the normal rule would require a new trial as to damages." *Verizon Servs.*, 503 F.3d at 1310; *see also VirnetX Inc.,* 792 Fed. Appx. at 812; *WesternGeco*, 913 F.3d at 1073 ("[W]hen a jury was told it could rely on any of two or more independent legal theories, one of which was defective, the general verdict must be set aside.").[6]

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[6] As noted above, the ongoing *inter partes* review proceeding concerning the '733 patent is likely to warrant vacating the damages award because a damages award based on two patents—each of which is presumed to claim different inventions—cannot be supported if one of the two patents is held invalid. *See Accentra*, 500 Fed. Appx. at 931 ("Because we have vacated the judgment as to two of the three patents, we believe that the proper course is to vacate the damages award in its entirety and remand for further proceedings.").

Similarly, if post-trial proceedings alter infringement findings for one of the accused systems (SPP or FCM) but not the other, the Court must at least grant a new trial on damages due to Headwater's failure to present any separated damages evidence on a per-system basis. *See VirnetX*, 792 Fed. App'x at 813 (advising necessary to consider damages retrial on remand where jury verdict based on "units having both FaceTime and VPN on Demand" but "the jury did not have to decide whether the $1.20-per-unit figure would be correct if only VPN on Demand infringed"). If post-trial proceedings alter the judgment such that one of the two systems does not infringe, Samsung is entitled to a new trial on damages in the absence of record evidence permitting division of the single damages award.

V.   THE COURT SHOULD MODIFY THE JUDGMENT TO OMIT OR REDUCE PREJUDGMENT INTEREST

Finally, Samsung requests that the Court reconsider or reduce the award of prejudgment interest to Headwater under Rule 59(e). *Nautilus, Inc. v. ICON Health & Fitness, Inc.,* No. SA-16-CV-00080-RCL, 2018 WL 2107729, at *1 (W.D. Tex. May 7, 2018) (Rule 59(e) is "the appropriate vehicle to update damages numbers and to amend judgments to include pre-and post-judgment interest."). As the Court recognizes, "prejudgment interest shall ordinarily be awarded ***absent some justification*** for withholding such an award." Dkt. No. 309 (quoting *Gen. Motors Corp. v. Devex Corp.*, 461 U.S. 648, 657 (1983)). "For example, it may be appropriate to limit prejudgment interest, or perhaps even deny it altogether, where the patent owner has been responsible for undue delay in prosecuting the lawsuit." *Gen. Motors Corp.*, 461 U.S. at 657. The facts warrant doing so here.

Headwater knew or had reason to know of the alleged infringement since at least 2016. Dr. Raleigh confirmed that he founded Headwater's sister company, ItsOn, in 2008 to "commercialize Headwater's intellectual property," and that ItsOn eventually "made an application to be used on

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devices in Sprint's network," including Samsung devices. Trial Tr. 223:1-20. Around the same

time, ItsOn actually used the accused Google push messaging system—which was previously

known as GCM and, before that, C2DM. Trial Tr. 228:6-230:12. Dr. Raleigh agreed that people

at Headwater's sister company and licensee, ItsOn, "were aware of FCM back in 2016." *Id*. at

240:6-8. And Dr. Raleigh also agreed it was possible that ItsOn had used the predecessor to the

accused technology, C2DM, as early as June 2012. *Id*. at 230:13-15. Accordingly, the evidence

showed that Dr. Raleigh and ItsOn were familiar with the operation of the accused FCM feature

(and its predecessor technology) and were working with Sprint to implement ItsOn software,

which used this same push messaging system, on Samsung devices on the Sprint Network in

2016. Dr. Raleigh also agreed that he "never told Samsung about the two patents, and [] never

told Samsung they were infringing these two patents prior to the lawsuit in this case." Trial Tr.

240:12-240:25. Yet Headwater never approached Samsung about the alleged infringement of the

asserted patents. Instead, Headwater waited as many as six years to file suit.[7] Headwater's delay

tactic was severely prejudicial, allowing damages and interest to accrue while depriving Samsung

of the opportunity to address any of Headwater's allegations either on the merits or through a

license agreement without litigation expenditure. Indeed, even when Headwater began is litigation

campaign against Samsung in October 2022 (No. 2:22-cv-422, Dkt. No. 1), it chose to wait an

additional six months (March 2023) to file the present lawsuit (Dkt. No. 1).

Samsung should not be ordered to pay prejudgment interest to Headwater for Headwater's

undue delay. *Mondis Tech. Ltd v. LG Elecs., Inc.*, No. CV 15-4431 (SRC), 2023 WL 3749992, at

*12 (D. N.J. June 1, 2023) ("Mondis was absolutely entitled to delay the filing of the case, but LG

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[7] Dr. Raleigh claimed he was unaware of Samsung's infringement in 2020, despite having conducted due diligence on ███████████████████████ to InterDigital. Trial Tr. 201:10-13. Thus, at a minimum, Headwater appears to have waited three years before filing suit.

should not be made to compensate Plaintiff for a strategic decision made for Plaintiff's own benefit."). Indeed, courts have denied or limited prejudgment interest on similar or shorter delays. *Crystal Semiconductor Corp. v. Tritech Microelectronics Int'l, Inc.*, 246 F.3d 1336 (Fed. Cir. 2001) (no prejudgment interest because the "two year delay in initiating the present suit caused the damages owed [] to escalate."); *Kaneka Corp. v. SKC Kolon Pl, Inc.*, 198 F. Supp. 3d 1089, 1124 (C.D. Cal. Aug. 2, 2016) (denying prejudgment interest where there was "no compelling explanation for why, after [the plaintiff] was aware of a possible claim for infringement, it waited four years to file suit."); *Saint-Gobain Autover USA, Inc. v. Xinyi Glass N. Am., Inc.*, 707 F .Supp. 2d 737, 766-67 (N.D. Oh. 2010) (denying prejudgment interest based on four year delay); *Milwaukee Elec. Tool Corp. v. Snap-On Inc.*, 288 F. Supp. 872, 907 (E.D. Wis. Dec. 29, 2017) (denying prejudgment interest based on five year delay); *Orion IP, LLC v. Mercedes-Benz USA, LLC*, No. 6:05-CV-322, 2008 WL 8856865, at *6 (E.D. Tex. Mar. 28, 2008) (denying prejudgment interest until after the lawsuit was filed because "[p]atent owners should not expect to be able to delay bringing suit [for eight years] and increase the damage award through prejudgment interest"). *Cf. Golden Hour Data Sys., Inc. v. Emscharts, Inc.*, No. 2:06-CV-381, 2014 WL 11512239, at *3 (E.D. Tex. Jan. 31, 2014) (indicating that it would be appropriate limit or eliminate prejudgment interest "where the patentee hides behind the log while the alleged infringer's sales accrue").

Alternatively, should the Court decline to strike prejudgment interest, Samsung requests that, given Headwater's long and prejudicial delay, the Court lower the prejudgment interest rate to "the same interest rate set by 28 U.S.C. § 1961 for post-judgment interest: the one-year Treasury Bill." *Enzo Biochem, Inc. v. Applera Corp.,* No. 3:04CV929 JBA, 2014 WL 29126, at *5 (D.

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Conn. Jan. 3, 2014) (reducing pre-judgement interest rate due to plaintiff's "self-inflicted delay"),

vacated on other grounds, 780 F.3d 1149, 1151 (Fed. Cir. 2015).

VI.   CONCLUSION

For the foregoing reasons, Samsung's motion should be granted.   Judgment of

noninfringement should be entered in favor of Samsung on all patents; judgment of invalidity

should be entered in favor of Samsung on all patents; and judgment should be entered that

Headwater is entitled to no damages, or, in the alternative, that the only damages award supported

by the evidence is ▮▮▮▮▮▮▮.   In the alternative, a new trial should be granted on non-

infringement, invalidity, and damages for the reasons discussed above.[8]

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[8] Because this is a combined Motion for Judgment as a Matter of Law under Rule 50(b) and Motion for New Trial under Rule 59, Samsung understands the combined page limit is 75 pages. *See* Local Rules CV-7(a)(3), CV-50; *see also Netlist, Inc. v. Samsung Elecs. Co., Ltd.*, No. 2:21-cv-00463-JRG, Dkt. No. 561 (E.D. Tex. Sept. 8, 2023).

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Respectfully submitted,

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CERTIFICATE OF AUTHORIZATION TO FILE UNDER SEAL

I certify that the following document is authorized to be filed under seal pursuant to the Protective Order in this case.

/s/ Noah C. Graubart
Noah C. Graubart

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document was filed electronically in compliance with Local Rule CV-5 on June 27, 2025. As of this date, all counsel of record had consented to electronic service and are being served with a copy of this document through the Court's CM/ECF system under Local Rule CV-5(a)(3)(A).

/s/ Noah C. Graubart
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